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STATE DEPT. OF AGRICULTURE

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**ANIMAL WASTE MANAGEMENT PLAN**

**Bill Anderson**  
**Poultry Production Operation**

**Section 9- T20N R25E**

**Other property includes:**

**Section 8- T20N R25E**

**Section 16- T20N R25E**

**Section 17- T20N R25E**

**Delaware County, Oklahoma**

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**ENTERED BY**  
**FEB 08 2007**  
**TONI REYNOLDS**

**Agricultural Environmental Management Services**  
**(AEEMS)**

**Oklahoma Department of Agriculture, Food and Forestry**  
**PO Box 528804**  
**Oklahoma City, OK 74105**

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## **ANIMAL WASTE MANAGEMENT PLAN**

**Bill Anderson**

**Plan Prepared in January 2008**

**Plan to be Revised January 2014**

### **A. INTRODUCTION**

Plants remove from the soil four to ten times as much nitrogen as phosphorus. Consequently a significant buildup of phosphorus in the soil can take place over a period of time. Much of the build up can be lost through runoff, which greatly reduces the quality of water downstream. Due to these water quality concerns, future land application of poultry litter will be based upon the phosphorus content in the soil and the amount of phosphorus in the chicken litter applied. The law requires that the Natural Resources Conservation Service (NRCS) recommendations for litter application rates be followed. NRCS recommends the application maximum of 200 lbs. of phosphorus per acre per year if the soil test shows a phosphorus index below 250. If the soil tests phosphorus index is between 250 and 400 then the rate applications are reduced by one-half. If the phosphorus index is above 400 then no litter is to be applied. If the maximum amount of litter that can be applied does not supply sufficient nitrogen for the desired production then nitrogen from other sources can be applied (ex: ammonium nitrate). About 50 lbs of nitrogen is needed to produce one ton of bermuda grass and about 60 lbs is needed to produce one ton of fescue.

### **B. DESCRIPTION OF OPERATION**

This waste management plan includes the production, handling, and distribution of waste and litter from two breeder houses. These houses are each 40 feet wide and 500 feet long. This includes an egg room in each house. They are located in Section 9, T.20N, R.25E., Delaware County, Oklahoma. Each flock of 18,000 birds (including roosters) is kept 10 to 11 months. This allows for clean out and preparation for the next annual flock. The bedding material consisting of wood shavings is placed in a strip through the center of the house from end to end. Total average yearly waste and litter production is estimated to be 260 tons. The time of clean out varies each year. If it should become necessary to store litter outside it will be protected from outside water and there will be no runoff from the stockpile. There are 198 acres in this property of which about 140 acres (owner's estimate) are suitable for receiving litter.

**C. APPLICATION RATES**

Fields are located in Section 8, 9, 16 and 17 T.20, R.25E., Delaware County, Oklahoma

**Nutrient Content:**

Due to miscommunication with other parties involved, no litter sample analysis is available. An average hen analysis is:

N-50 lbs.                      P<sub>2</sub>O<sub>5</sub>-55 lbs.                      K<sub>2</sub>O-30 lbs.

The litter will be tested before any is removed from the houses. Since none of the litter is used on this property, no soil tests were done. Soil tests will be done before any litter is used on this farm.

In the event litter is used on this farm, do not spread within 50 to 100 feet of ponds, streams or water wells.

**D. DEAD BIRD DISPOSAL**

Birds from normal death loss are disposed of in an incinerator. The poultry company picks up catastrophic losses.

**E. WASTE UTILIZATION GUIDELINES**

In the event litter is used on this property use the following waste utilization guidelines:

1. All waste will be applied in accordance with all state and local laws and ordinances.
2. All waste applications will be timed to minimize pollution.
3. Any one of the following conditions will prohibit the surface application of litter:
  - a. High velocity wind is toward a populated area.
  - b. There is high probability of a runoff producing rainfall.
  - c. The ground is frozen.
  - d. Saturated conditions exist.
  - e. The Phosphorus Index is 300 or greater in nutrient limited watersheds.
  - f. The Phosphorus Index is 400 or greater in non-nutrient limited watersheds.
  - g. Frequently flooded areas.
  - h. Areas where there will be discharge from the application site.
  - i. Severely eroding areas.
  - j. Soils are less than 10 inches deep.
  - k. Slopes are greater than 15% (fifteen feet rise or fall in 100 feet).
  - l. Very stony areas.

**F. BEST MANAGEMENT PRACTICES**

**In the event litter is used on this property use the following best management practices:**

- 1. Apply litter not to exceed amounts given in the waste management plan or a revised recommendation based on new soil and litter tests.**
- 2. Obtain new soil and litter test every year. Soil tests are required only in fields where litter is to be applied.**
- 3. Secure enough soil tests to adequately represent the conditions of your farm. Generally one composite sample is needed for each 40 acres where litter is to be applied.**
- 4. Maintain a good growth of grass at all times. Grass should not be less than 4 inches tall. This reduces runoff, erosion, and nutrient loss.**
- 5. Spread litter during growth season of dominant plants.**
- 6. Control weeds and brush to maintain a good stand of grass.**
- 7. Do not apply litter within 50 to 100 feet of streams, ponds, and water wells. Buffer strips should be maintained in these areas.**
- 8. On slopes of 8 to 15%, use one-half the normal prescribed rate of litter.**

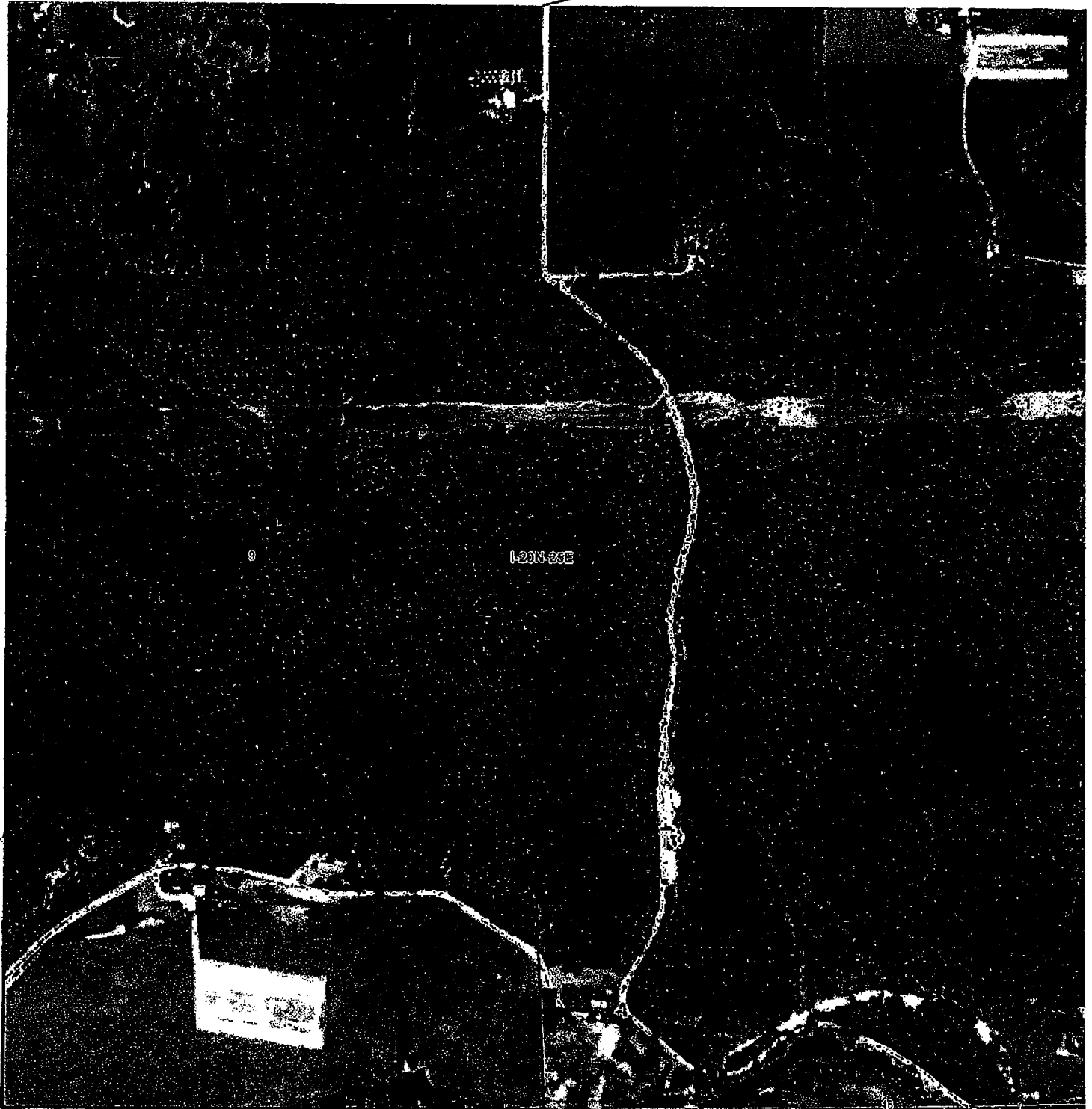
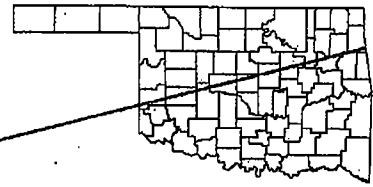
**G. ENVIRONMENTAL STATEMENT**

**There are ponds and intermittent streams on this property that require special precautions when spreading litter (See statement F.7). Some areas are seasonally wet which limits litter applications to certain times of the year. The small areas that are subject to frequent flooding are still in woodland. This property is in an area of highly vulnerable groundwater.**

**H. ADDITIONAL INFORMATION**

- 1. The dominant grass is bermuda grass.**
- 2. Owner sometimes does his own clean out and at other times hires it done.**
- 3. Keep records of amount of litter produced, date of total clean out, and where litter is applied if not sold.**
- 4. Any person taking litter from this property must be given a copy of a current litter test.**
- 5. Litter and soil testing should be done about one month before time of total clean out. This will allow adequate time for test results to be returned and used in determining application rates.**
- 6. If assistance is needed, please call Ed Abernathy at (918) 647-3094.**

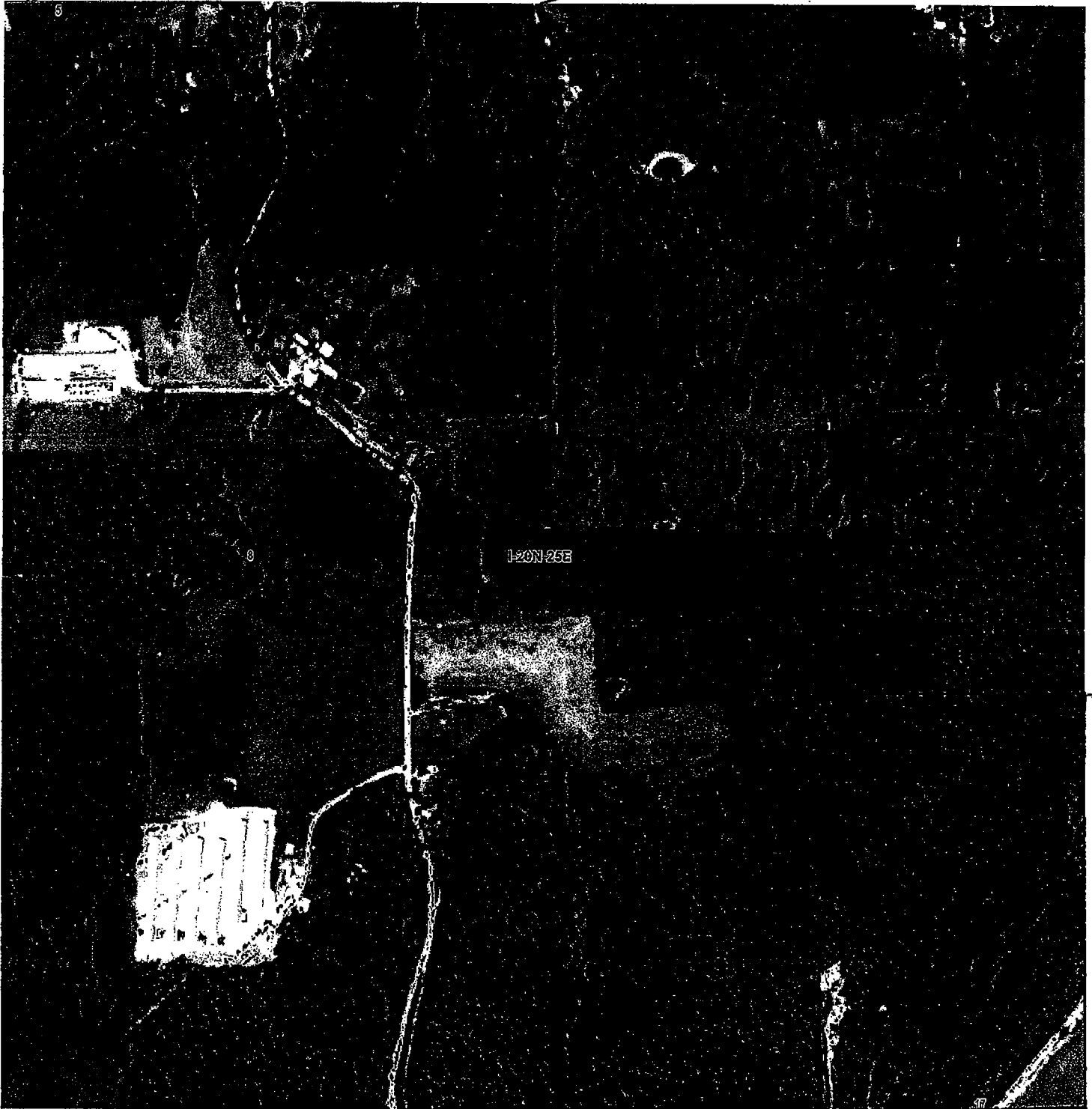
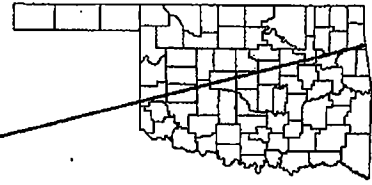
**S9 T20N R25E**  
**Delaware County, OK**



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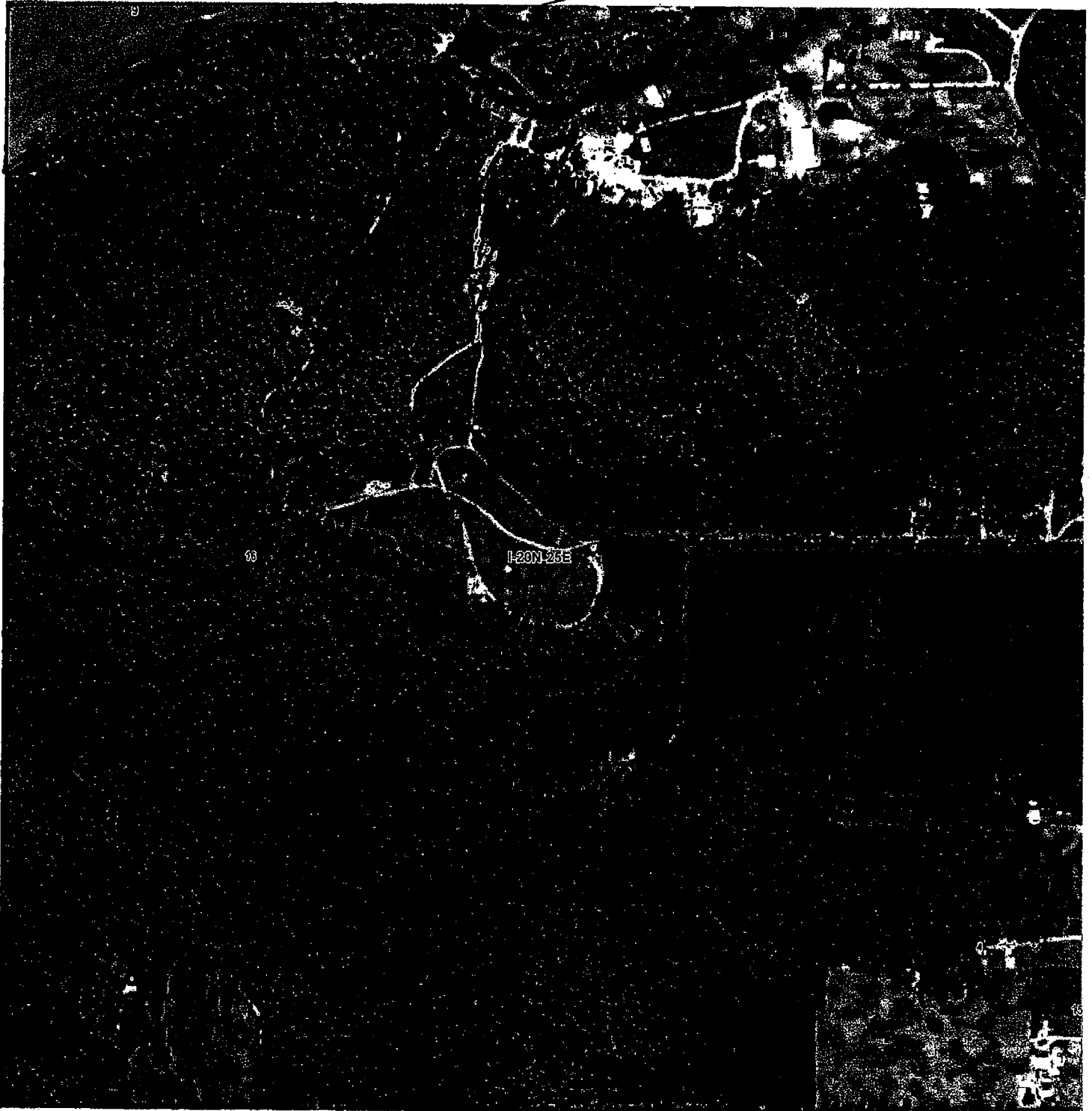
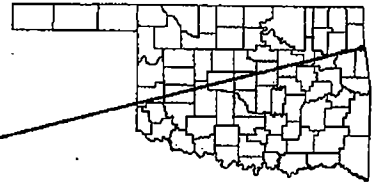
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**S8 T20N R25E**  
**Delaware County, OK**



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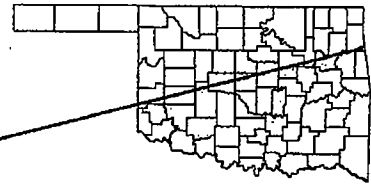
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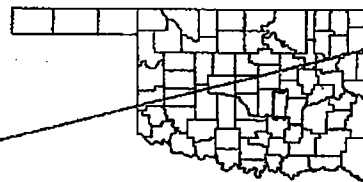


**S17 T20N R25E**  
**Delaware County, OK**



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# **S9 T20N R25E** **Delaware County, OK**



## **Section 9**

### **Map Symbol**

**CIF**

**CkD**

**SaA**

**SaB**

**SgB**

**SgD**

### **Soil Name**

**Clarksville stony silt loam, 20 to 50 percent slopes**

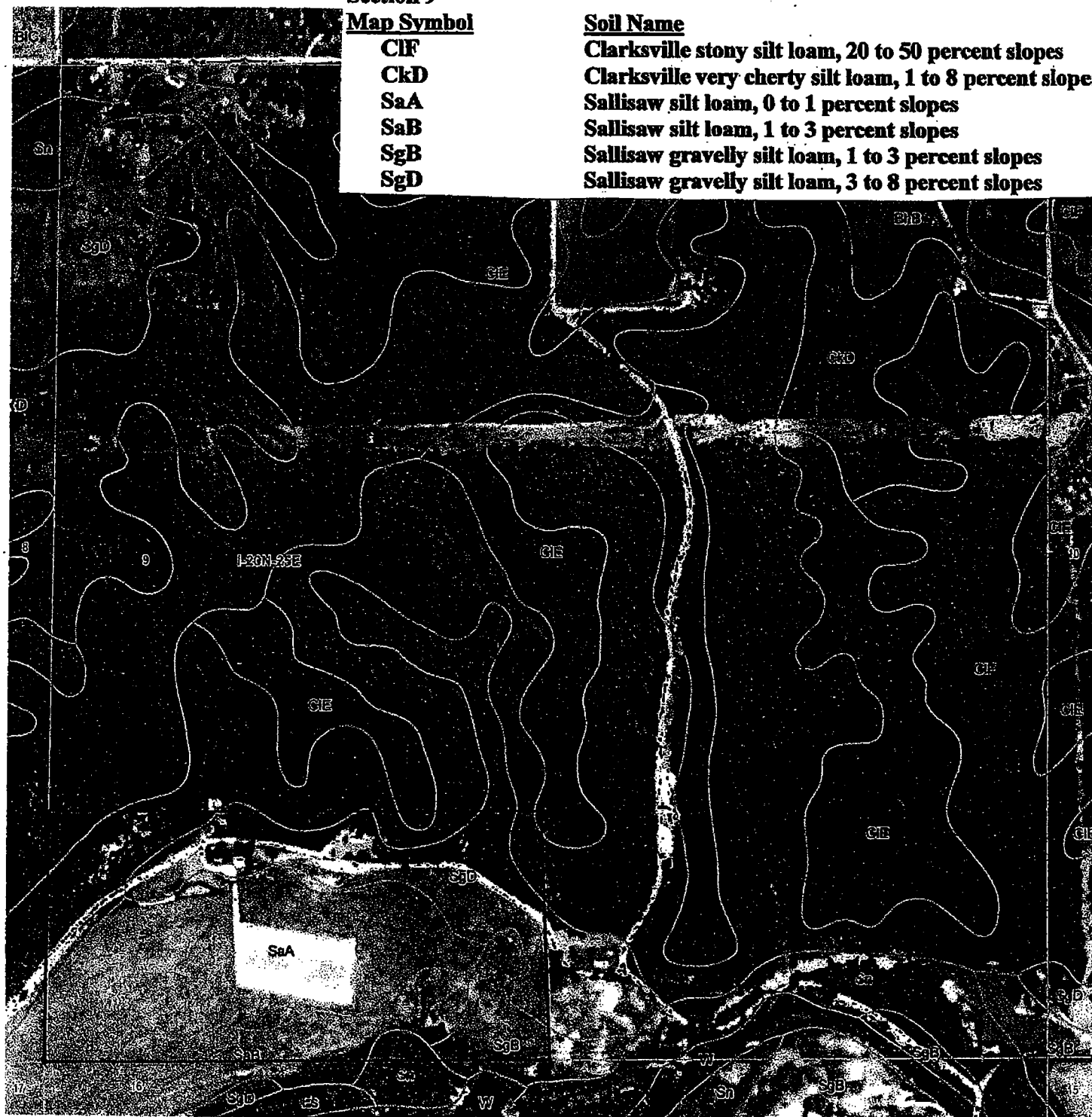
**Clarksville very cherty silt loam, 1 to 8 percent slopes**

**Sallisaw silt loam, 0 to 1 percent slopes**

**Sallisaw silt loam, 1 to 3 percent slopes**

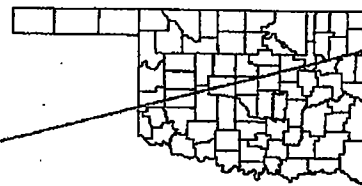
**Sallisaw gravelly silt loam, 1 to 3 percent slopes**

**Sallisaw gravelly silt loam, 3 to 8 percent slopes**



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# S8 T20N R25E Delaware County, OK

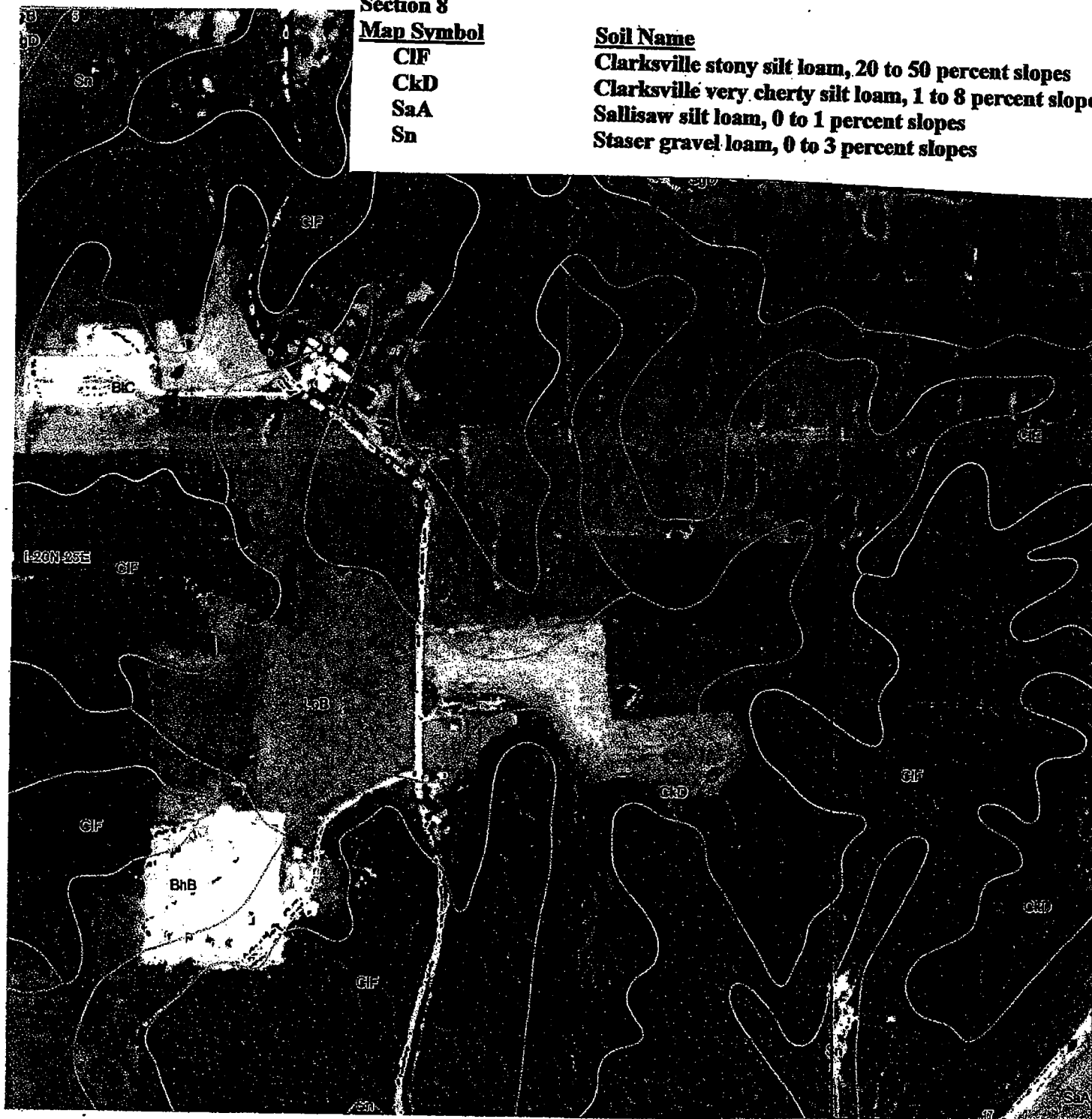


## Section 8 Map Symbol

CIF  
CkD  
SaA  
Sn

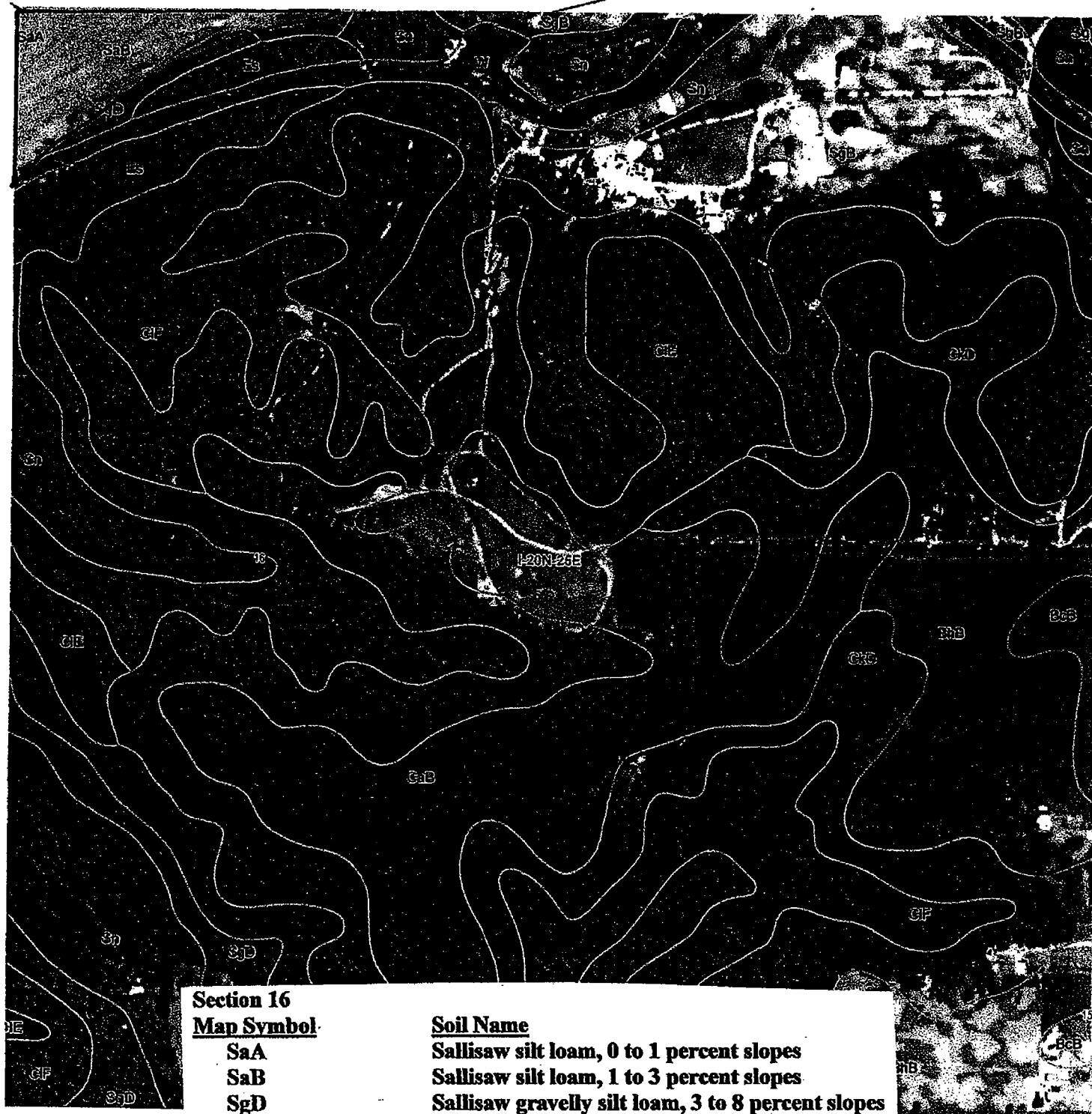
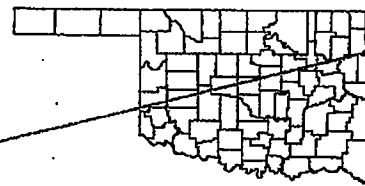
## Soil Name

Clarksville stony silt loam, 20 to 50 percent slopes  
Clarksville very cherty silt loam, 1 to 8 percent slopes  
Sallisaw silt loam, 0 to 1 percent slopes  
Staser gravel loam, 0 to 3 percent slopes

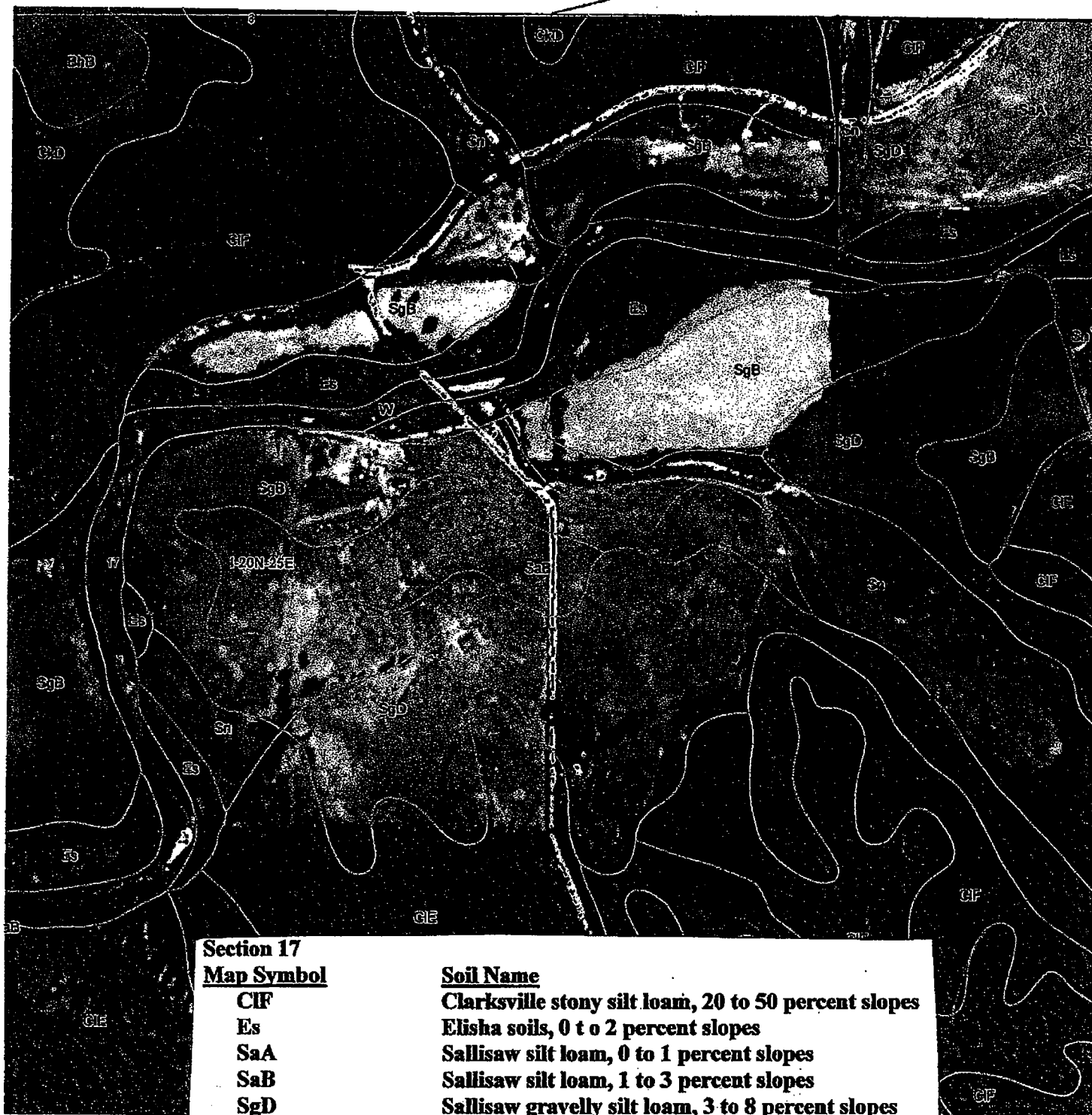
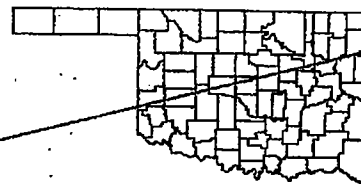


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# **S16 T20N R25E** **Delaware County, OK**



# **S17 T20N R25E** **Delaware County, OK**



## **Section 17**

### **Map Symbol**

CIF

Es

SaA

SaB

SgD

### **Soil Name**

Clarksville stony silt loam, 20 to 50 percent slopes

Elisha soils, 0 to 2 percent slopes

Sallisaw silt loam, 0 to 1 percent slopes

Sallisaw silt loam, 1 to 3 percent slopes

Sallisaw gravelly silt loam, 3 to 8 percent slopes

0 660 1320 1980 2640 Feet

Produced by the Oklahoma Department of Agriculture Geographic Information System.



<b>Map Symbol</b>	<b>SOIL NAME AND DESCRIPTION</b>
<b>CIF</b>	<p><b>Clarksville stony silt loam, 20 to 50 percent slopes</b></p> <p><b>This is a deep, well drained to excessively drained soil with a stony, silt loam surface layer and a silty clay loam subsoil. It is low in natural fertility, organic matter content and available water capacity.</b></p>
<b>CkD</b>	<p><b>Clarksville very cherty silt loam, 1 to 8 percent slopes</b></p> <p><b>This is a deep soil with a very cherty silt loam surface layer and a very cherty silty clay loam subsoil. Natural fertility, organic matter content, and available water capacity are medium to low. The soil is suited for tame pasture.</b></p>
<b>Es</b>	<p><b>Elisha soils (0 to 2 percent slopes)</b></p> <p><b>This is a deep, very gravelly, loamy soil that is subject to frequent to flooding. This soil is high in natural fertility and organic matter content, It is low in available water capacity.</b></p>
<b>SaA</b>	<p><b>Sallisaw silt loam, 0 to 1 percent slopes</b></p> <p><b>This is a deep soil with a silt loam surface layer and a silty clay loam subsoil. It is medium in natural fertility organic matter content and available water capacity.</b></p>
<b>SaB</b>	<p><b>Sallisaw silt loam, 1 to 3 percent slopes</b></p> <p><b>This is a deep well drained soil with a silt loam surface layer and a silty clay loam subsoil. It is medium in natural fertility, organic matter content and available water capacity.</b></p>
<b>SgB</b>	<p><b>Sallisaw gravelly silt loam, 1 to 3 percent slopes</b></p> <p><b>This is a deep well drained soil with a gravelly silt loam surface layer and a gravelly silty clay loam subsoil. It is medium in natural fertility, organic matter content and available with capacity.</b></p>

**SgD**

**Sallisaw gravelly silt loam, 3 to 8 percent slopes**

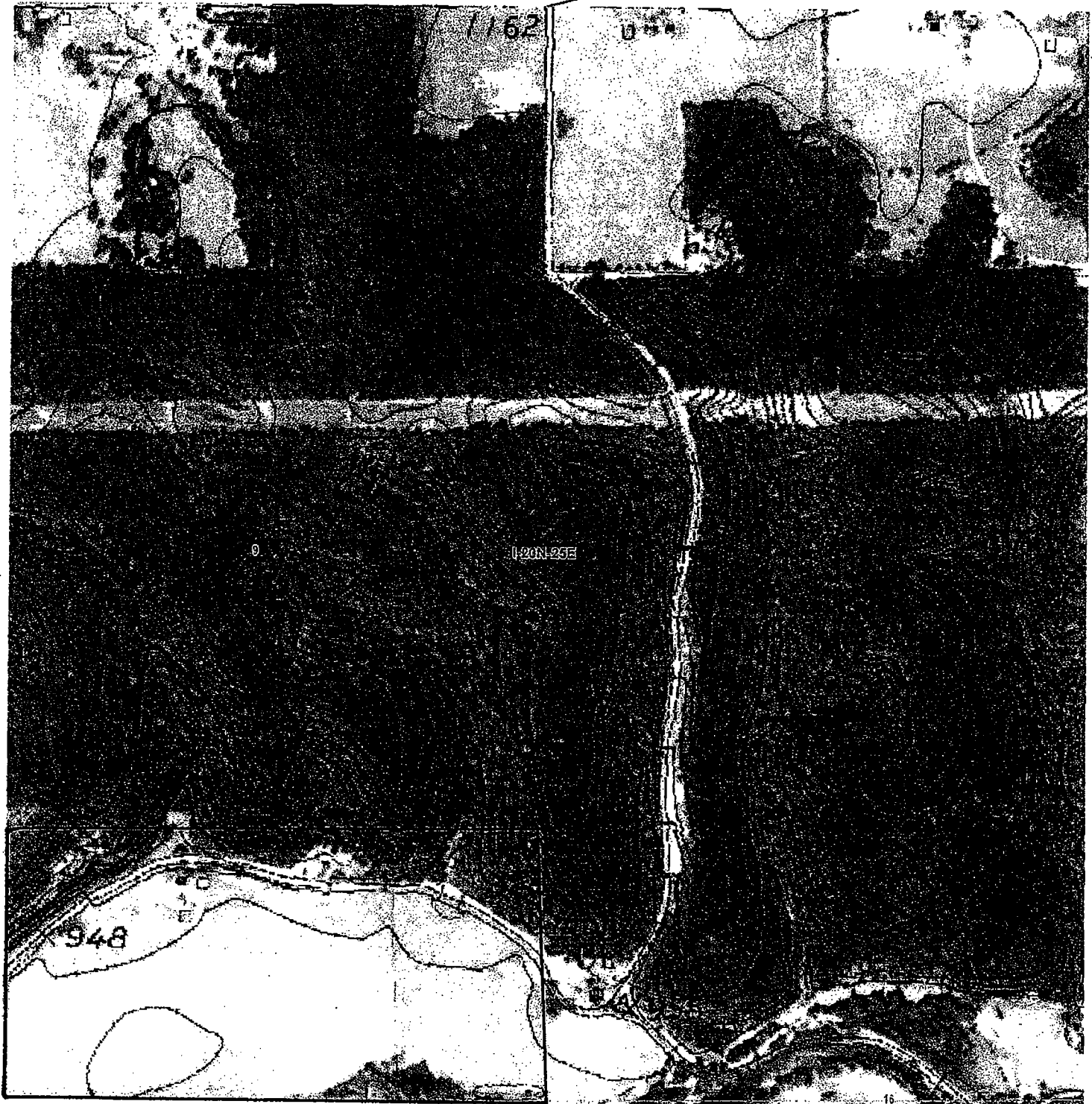
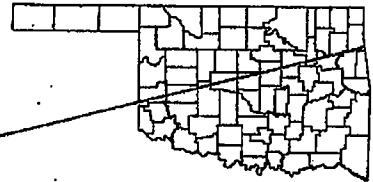
**This is a deep well drained soil with a gravelly silt loam surface layer and a gravelly silty clay loam subsoil. It is medium in natural fertility, organic matter content, and available water capacity.**

**Sn**

**Staser gravel loam, 0 to 3 percent slopes**

**This is a deep well drained soil that is gravelly loam throughout. It is high in natural fertility and organic matter content. The available water capacity is low.**

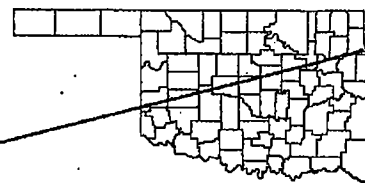
**S9 T20N R25E**  
**Delaware County, OK**



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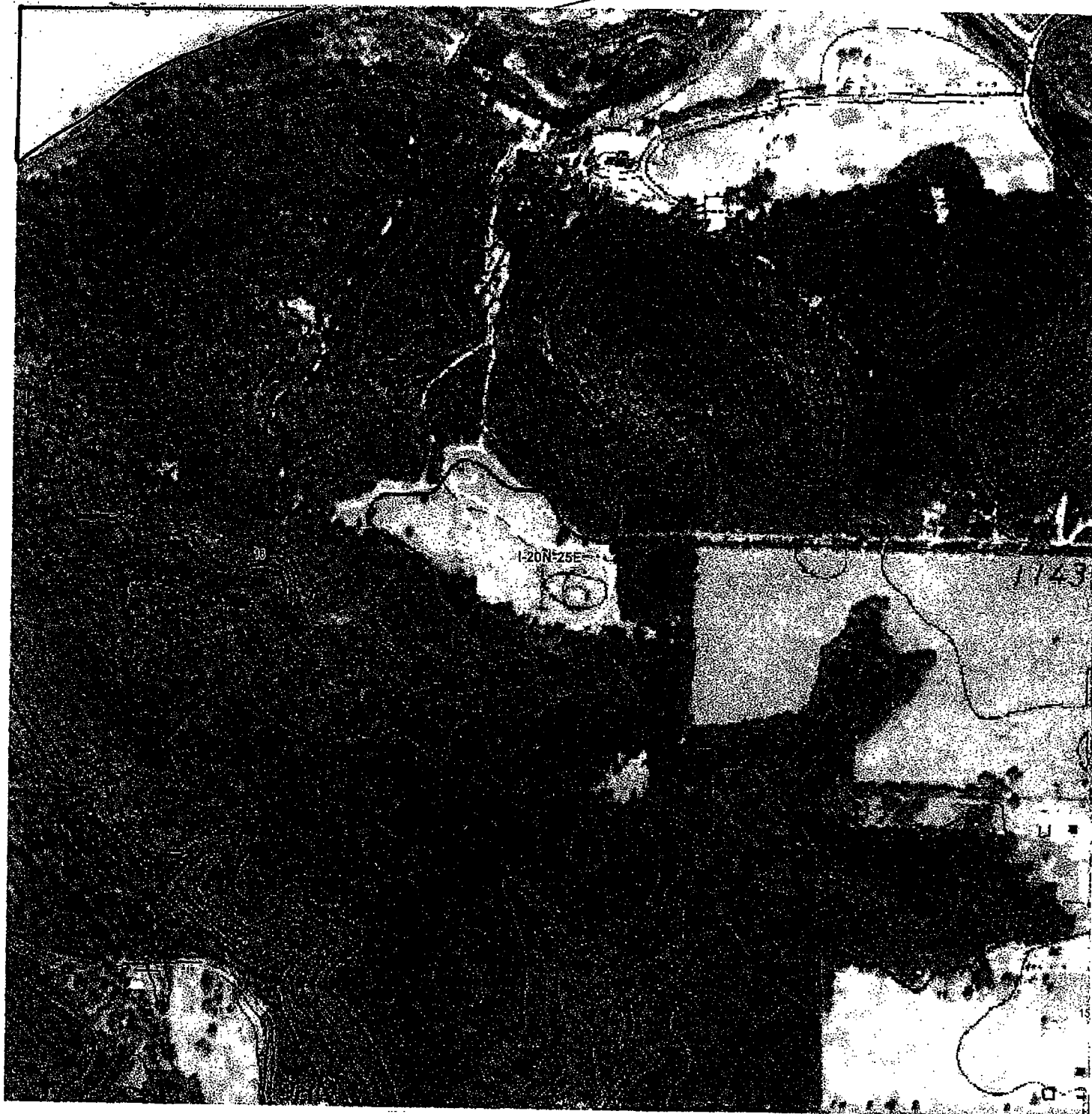
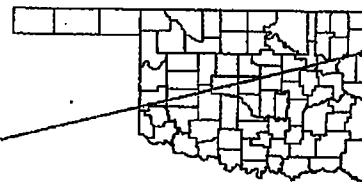
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**Delaware County, OK**



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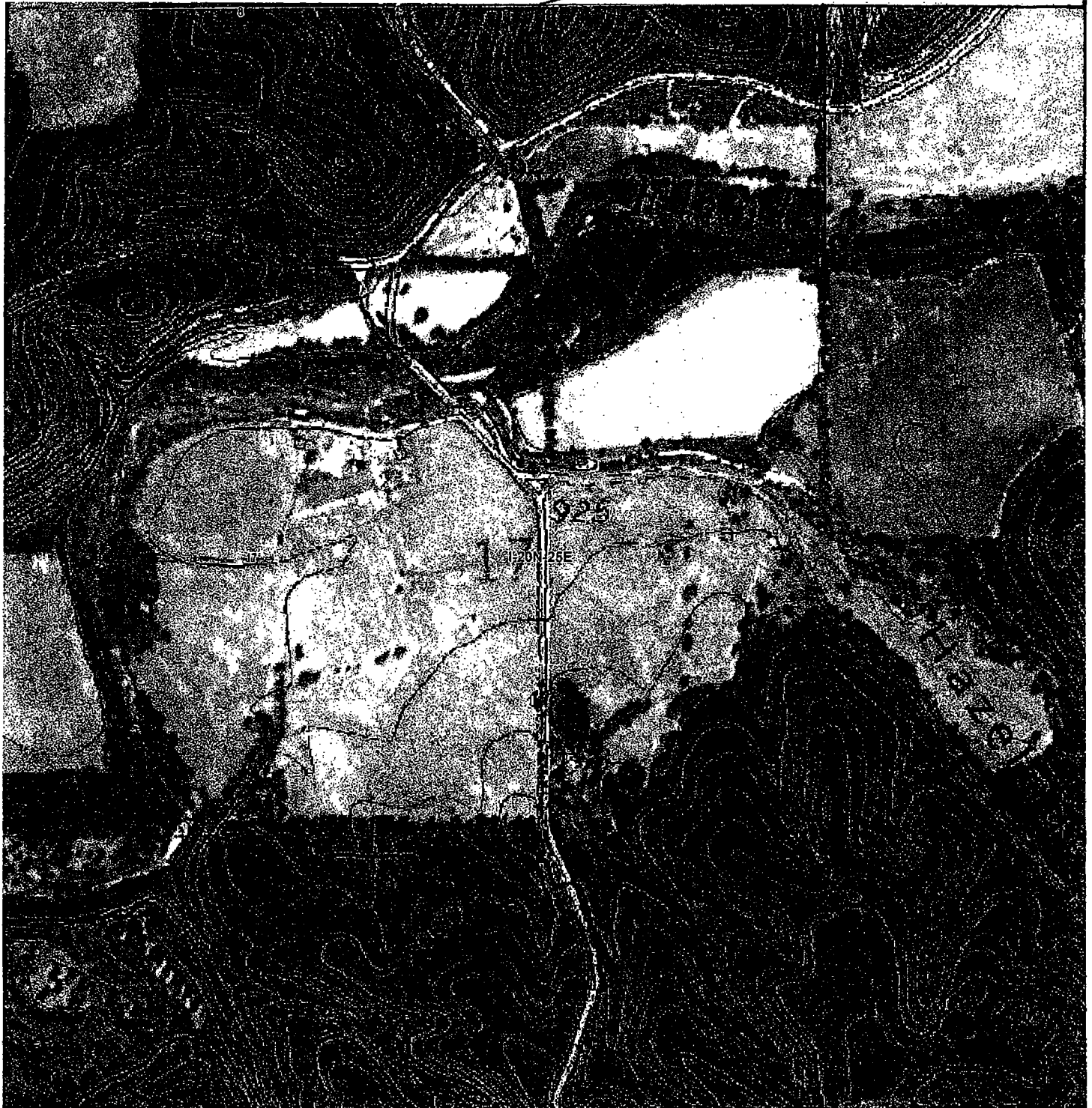
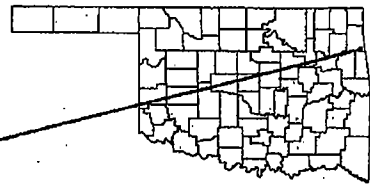
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**Delaware County, OK**



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**S17 T20N R25E  
Delaware County, OK**

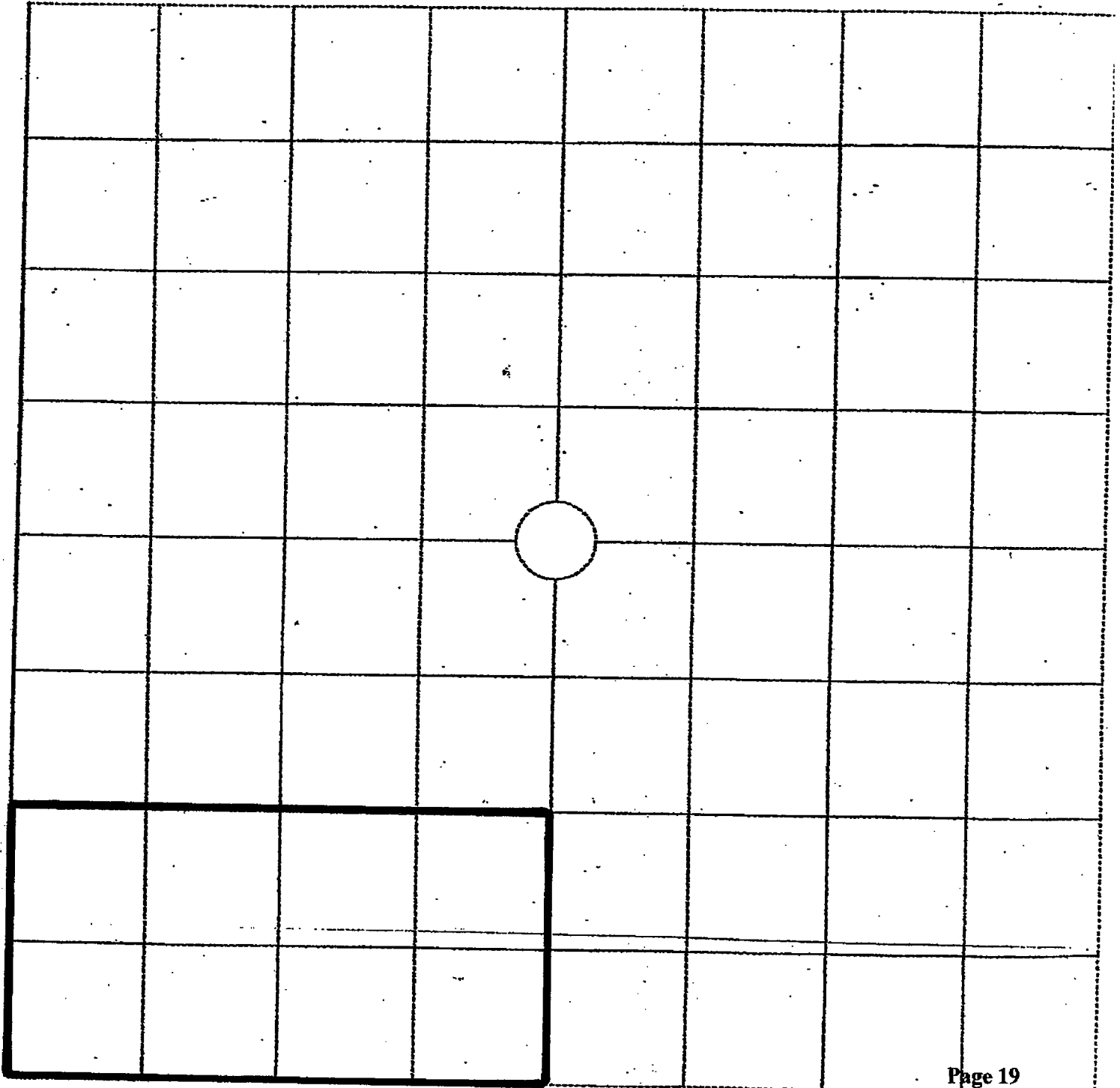
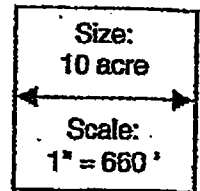


0 660 1320 1980 2640 Feet

OKLAHOMA DEPARTMENT OF AGRICULTURE, FOOD, & FORESTRY  
AGRICULTURAL ENVIRONMENTAL MANAGEMENT SERVICES  
Legal Location Platt



Facility Name Bill Anderson  
Legal Desc.           ,           ,            Sec 9 T30N R25E Mer.             
County Delaware County, Oklahoma



OKLAHOMA DEPARTMENT OF AGRICULTURE, FOOD, & FORESTRY  
AGRICULTURAL ENVIRONMENTAL MANAGEMENT SERVICES

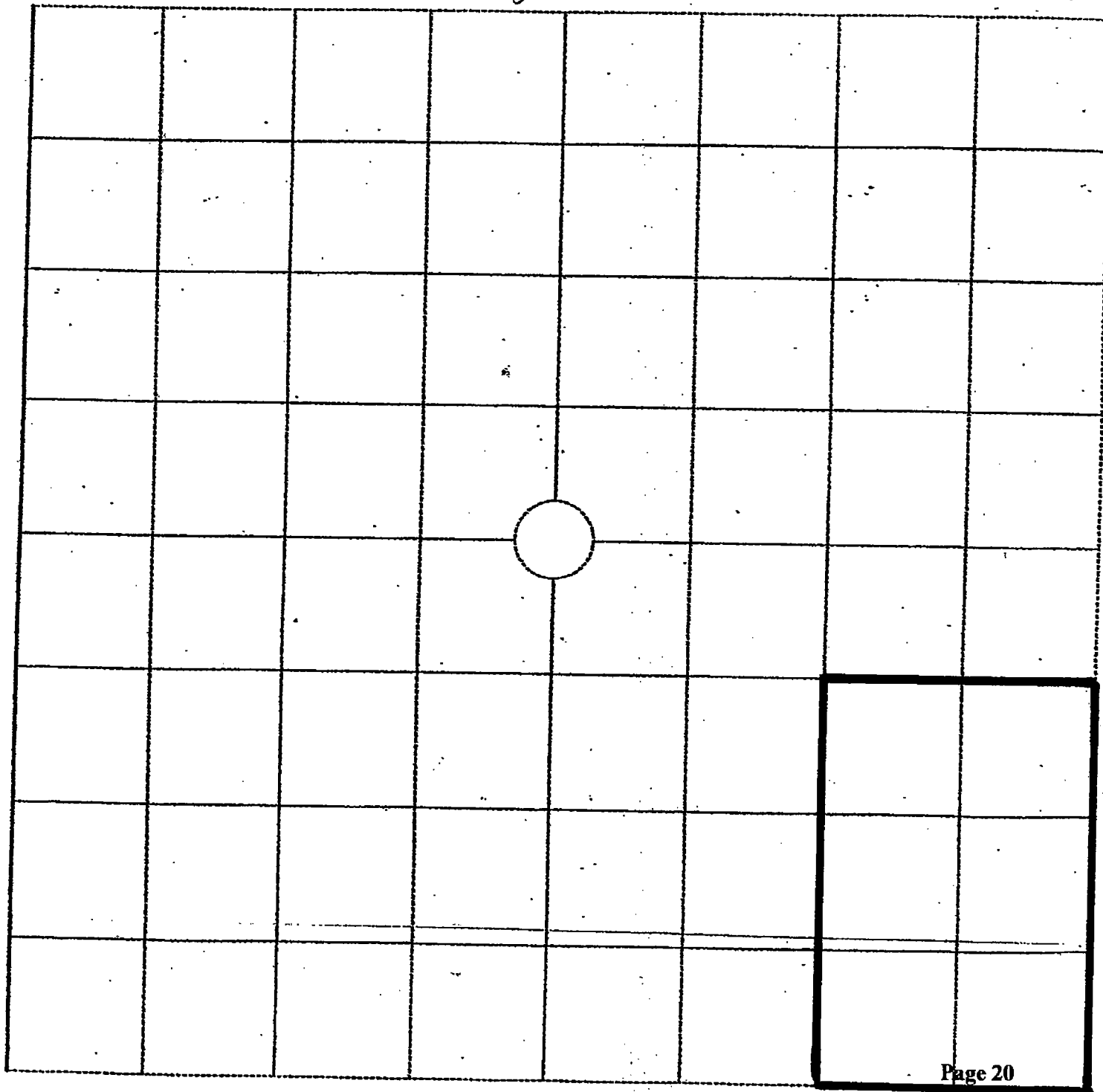
Legal Location Platt

NORTH



Facility Name Bill Anderson  
Legal Desc.       ,       ,        Sec 8 T 20N R 25E Mer.         
County Delaware County, Oklahoma

Size:  
10 acre  
Scale:  
1" = 660'



OKLAHOMA DEPARTMENT OF AGRICULTURE, FOOD, & FORESTRY  
AGRICULTURAL ENVIRONMENTAL MANAGEMENT SERVICES

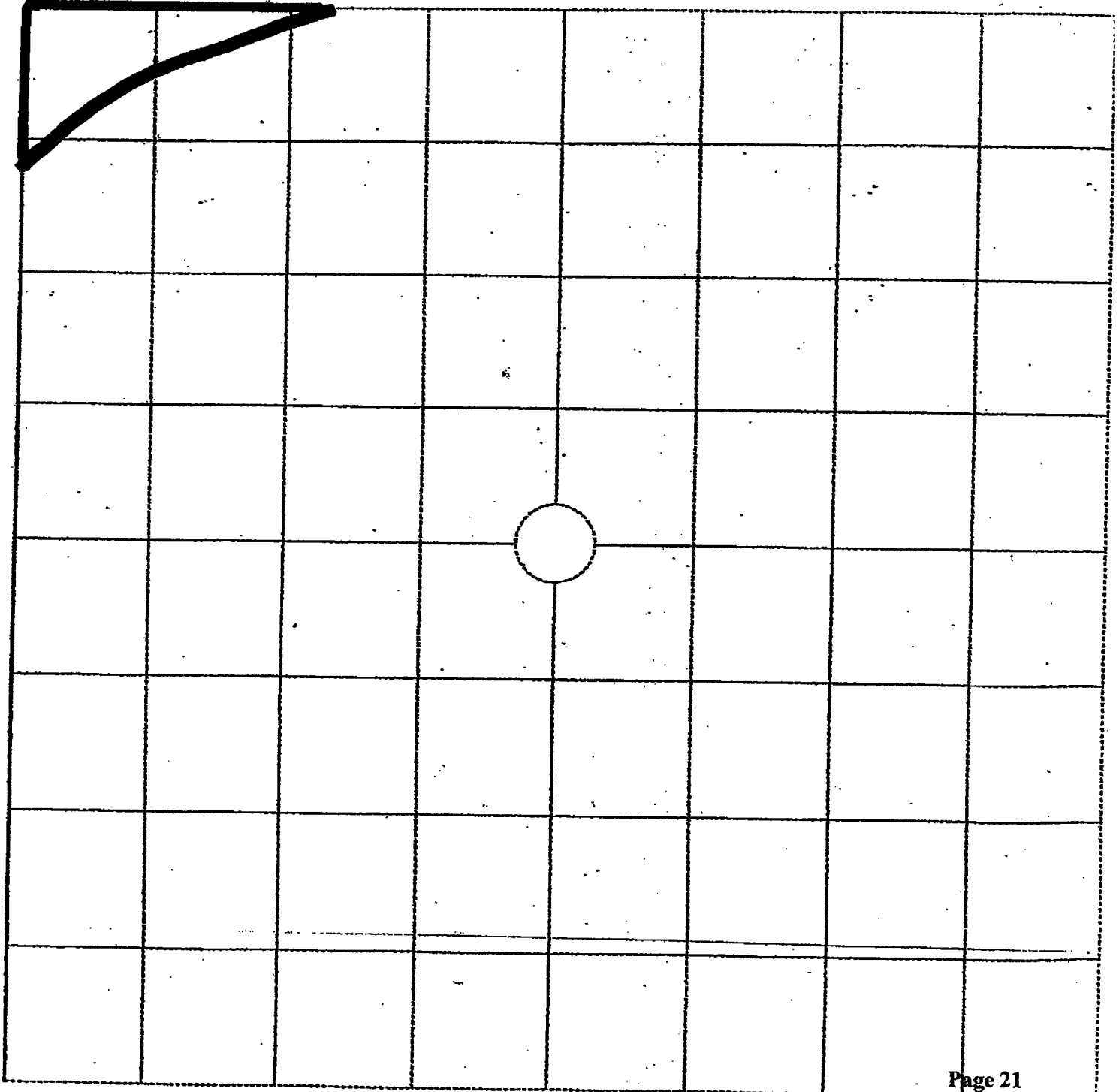
Legal Location Platt

NORTH



Facility Name Bill Anderson  
Legal Desc.           ,           ,            Sec 16 T 20N R 25E Mer.             
County Delaware County, Oklahoma

Size:  
10 acre  
Scale:  
1" = 660'



OKLAHOMA DEPARTMENT OF AGRICULTURE, FOOD, & FORESTRY NORTH  
AGRICULTURAL ENVIRONMENTAL MANAGEMENT SERVICES

Legal Location Platt

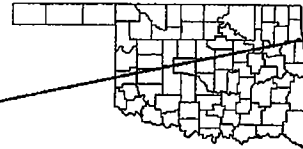


Facility Name Bill Anderson  
Legal Desc.           ,           ,            Sec 17 T 20N R 25E Mer.             
County Delaware County, Oklahoma

Size:  
10 acre  
Scale:  
1" = 660'




**S30 T20N R25E**  
**Delaware County, OK**

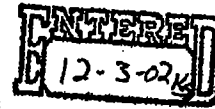


Bill/Betty Anderson#2  
ID# 1087, SE1/4, SE1/4, NE1/4  
Printed: 5/9/06

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**ANIMAL WASTE MANAGEMENT PLAN**  
**BILL R. ANDERSON**  
**POULTRY PRODUCTION OPERATION**  
**Sections 30 & 33, T20N, R25E**  
**DELAWARE COUNTY, OKLAHOMA**



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Water Quality  
STATE DEPT. OF AGRICULTURE



**WATER QUALITY SERVICES DIVISION**  
**OKLAHOMA DEPARTMENT OF AGRICULTURE**  
P.O. Box 528804, Oklahoma City, OK. 73105

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**ANIMAL WASTE MANAGEMENT PLAN**  
**BILL R. ANDERSON**  
**POULTRY PRODUCTION OPERATION**  
**DELAWARE COUNTY, OKLAHOMA**  
**Prepared in November 2002**

**A - INTRODUCTION**

Plants remove from the soil 4 to 10 times as much nitrogen as phosphorus. Consequently, a significant build up of phosphorus in the soil can take place over a period of time. Much of the build up can be lost through runoff, which greatly reduces the quality of water downstream. Due to these water quality concerns, future land application of poultry litter will be based upon the phosphorus content in the soil and the amount of phosphorus in the chicken litter to be applied. The law requires that the Natural Resources Conservation Service recommendations for litter application rates be followed. NRCS recommends the application of a maximum of 200 lbs. of phosphorus per acre per year if the soil test shows a phosphorus index below 250. If the soil test phosphorus index is above 250 then rate applications are adjusted downward accordingly. If the maximum amount of litter that can be applied does not supply sufficient nitrogen for the desired production then nitrogen from other sources can be applied (ex. ammonium nitrate). About 50 lbs. of nitrogen is needed to produce a ton of bermuda grass and about 60 lbs is needed to produce a ton of fescue. Based on current litter and soil tests, and with recommended litter applications, potassium will be adequate for plant growth.

**B - DESCRIPTION OF OPERATION**

This waste management plan includes the production, handling, and distribution of waste and litter from four pullet houses. These houses are each 40 feet wide and 300 feet long. They are located in Section 30, T20N, R25E, Delaware County, Oklahoma. Each batch of about 18,600 pullets (plus about 1500 roosters) is kept approximately 5 months. There is about a 3-week period between batches to allow for cleanout and preparation for the next batch of pullets. The average is 2 batches of birds per year. Total waste and litter production is estimated to be 170 tons. The waste is accumulated on wood shavings bedding material and is completely removed 2 times per year. The present clean out schedule is November and June. The litter is spread on the surface of the ground, when removed, if conditions are right for spreading. Otherwise, it is stored and protected from outside water. There will be no runoff from the stockpile. There are about 40 acres in this property. However the owner has access to an additional approximately 275 acres.

As shown on the aerial photograph, the 40 acres, where the pullet houses are, is separated from the other property by a dash line. This total acreage above receives litter from poultry houses owned by the Anderson's daughter.

### **C – APPLICATION RATES**

**Field 1: Section 33, T20N, R25E**

**Field 2: Section 30, T20N, R25E**

(See attached aerial photographs for specific location of each field).

#### **Nutrient Content**

According to the latest (9/02) litter test, each ton of litter contains:

N – 43 lbs.      P205 – 60 lbs.      K20 – 48 lbs.

#### **Soil test results (7&8/02)**

Field No.	N03	P Index	K Index
1	6 lbs.	54 lbs.	232 lbs.
2	4 lbs.	27 lbs.	294 lbs.

Soil test P Index is below 250 in both fields. Litter can be applied at the full rate. The bottomland area shown in blue on the soils map can only receive litter between June 20 and September 20 or if there is a 4-inch growth of fescue litter can be applied between February 1 and April 20.

200 lbs. P205 divided by 60 lbs. P205 per/ton = 3.3 tons of litter per acre per year. This 3.3 tons will supply enough nitrogen to produce about 2 tons of bermuda grass or about 1.7 tons of fescue. (Fertilizer is 70 percent effective the first year).

The following lime applications are recommended.

Field 1 – 1.4 tons ECCE lime per acre

Field 2 – 1.2 tons ECCE lime per acre

Do not apply litter adjacent to ponds, streams, or water wells.

#### **Application Summary**

Litter production from 4 pullet houses = 170 tons. 170 tons divided by 3.3 tons per acre = 52 acres that can be covered at the full rate. This will only cover a portion of the available land. However some of the land is receiving litter from other sources. Caution should be taken not to put litter on the same land twice in one year. Adequate and timely soil sampling is very important where litter is being supplied from two sources. (See Item F. 2 & 3).

#### **D - DEAD BIRD DISPOSAL**

**Birds from normal death loss are disposed of in an incinerator.**

**Birds from catastrophic losses are disposed of in a dug pit as approved by the appropriate poultry inspector. An alternate method is infield composting.**

#### **E - WASTE UTILIZATION GUIDELINES**

- 1. All waste will be applied in accordance with all state and local laws and ordinances.**
- 2. All waste applications will be timed to minimize pollution.**

**Any one of the following conditions will prohibit the surface application of litter.**

- a. High velocity wind is toward a populated area.**
  - b. There is a high probability of a runoff producing rainfall.**
  - c. The ground is frozen.**
  - d. Saturated soil condition exists.**
- 3. Discharge or runoff from waste application sites is prohibited.**
  - 4. Spread litter during growing season of dominant plants.**
  - 5. Do not apply to actively eroding areas.**
  - 6. Do not apply on shallow soils (less than 10 inches deep), on slopes greater than 15 percent, or on stony areas.**

#### **F - BEST MANAGEMENT PRACTICES**

- 1. Apply litter not to exceed amounts given in this waste management plan or a revised recommendation based on new soil and litter tests.**
- 2. Soil and litter are to be tested every year.**
- 3. Secure enough soil tests to adequately represent the conditions on your farm. Generally one composite soil sample is needed for each 40 acres where litter is to be applied.**
- 4. Maintain a good growth of grass at all times. Grass should not be less than four inches tall. This reduces runoff, erosion, and nutrient loss.**
- 5. Control weeds and brush to maintain a good stand of grass.**
- 6. Do not apply litter within 50 to 100 feet of streams, ponds, and water wells. Buffer strips should be maintained along these areas.**
- 7. On slopes of 8 to 15 percent, use one-half the normal prescribed rate of litter.**

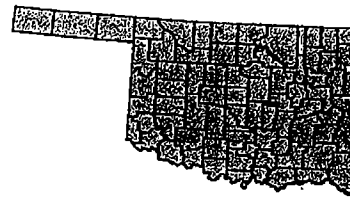
**G - ENVIRONMENTAL ASSESSMENT**

**There are ponds and intermittent streams on this property that require special precautions when spreading litter. (See Item F. 6). Some areas are seasonally wet which limits litter application to certain times of the year. The steep and/or stony areas are still in timber.**

**H - ADDITIONAL INFORMATION**

- 1. The dominant grasses are bermuda grass and fescue.**
- 2. The present clean out schedule is November and June.**
- 3. Litter sampling after each batch of chickens is not required. One sample per year is adequate. Additional sampling can be done for your own information.**
- 4. Owner should keep records of time of clean out, tons of litter produced and who receives the litter in the event any should be removed from this farm.**
- 5. The amount of litter produced was taken from the owner's records.**

**S30 T20N R25E**  
**Delaware County, OK**



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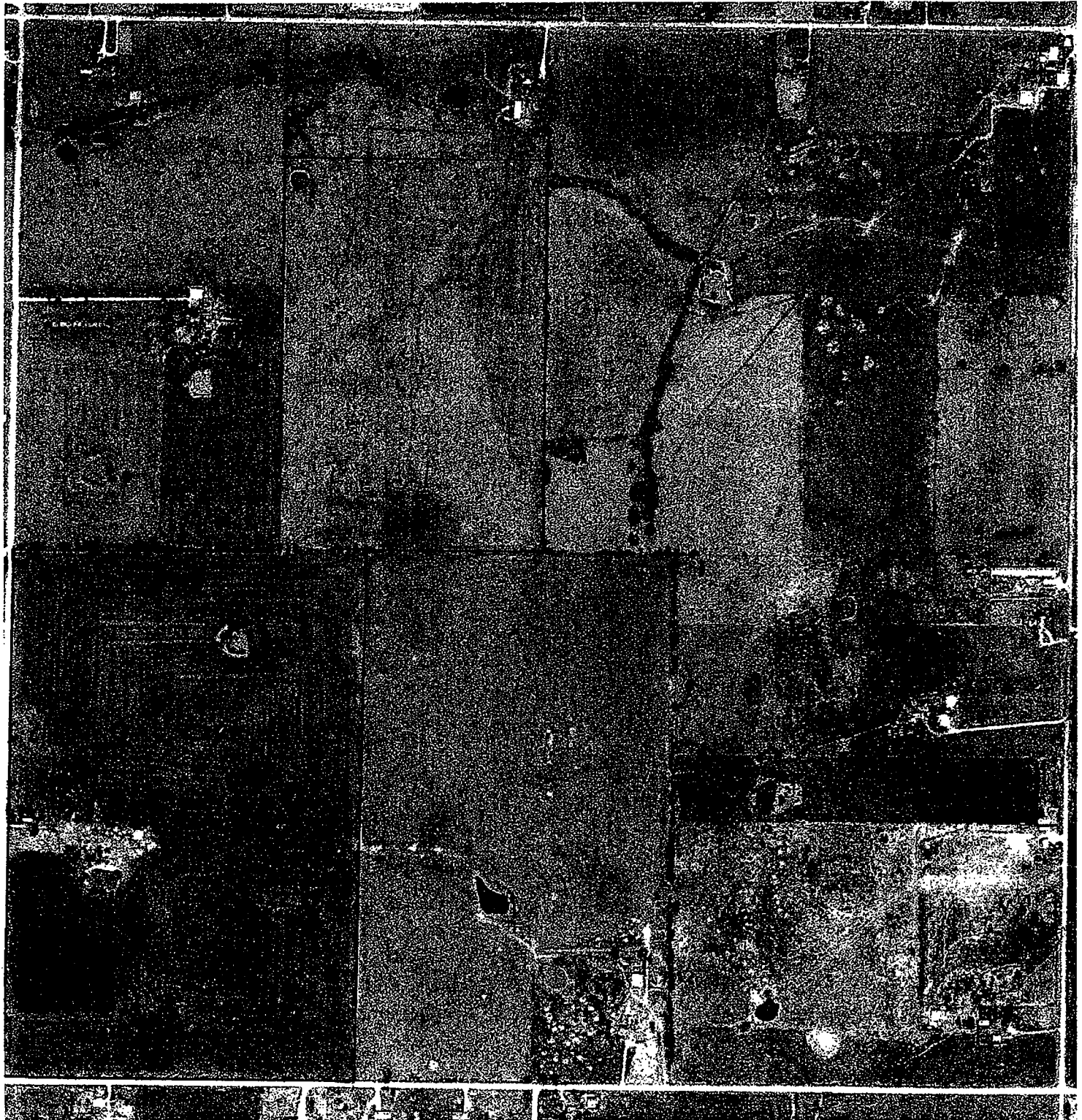
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Page 6

*S.T. - Soil Test*



# S33 T20N R25E Delaware & Adair Counties, OK

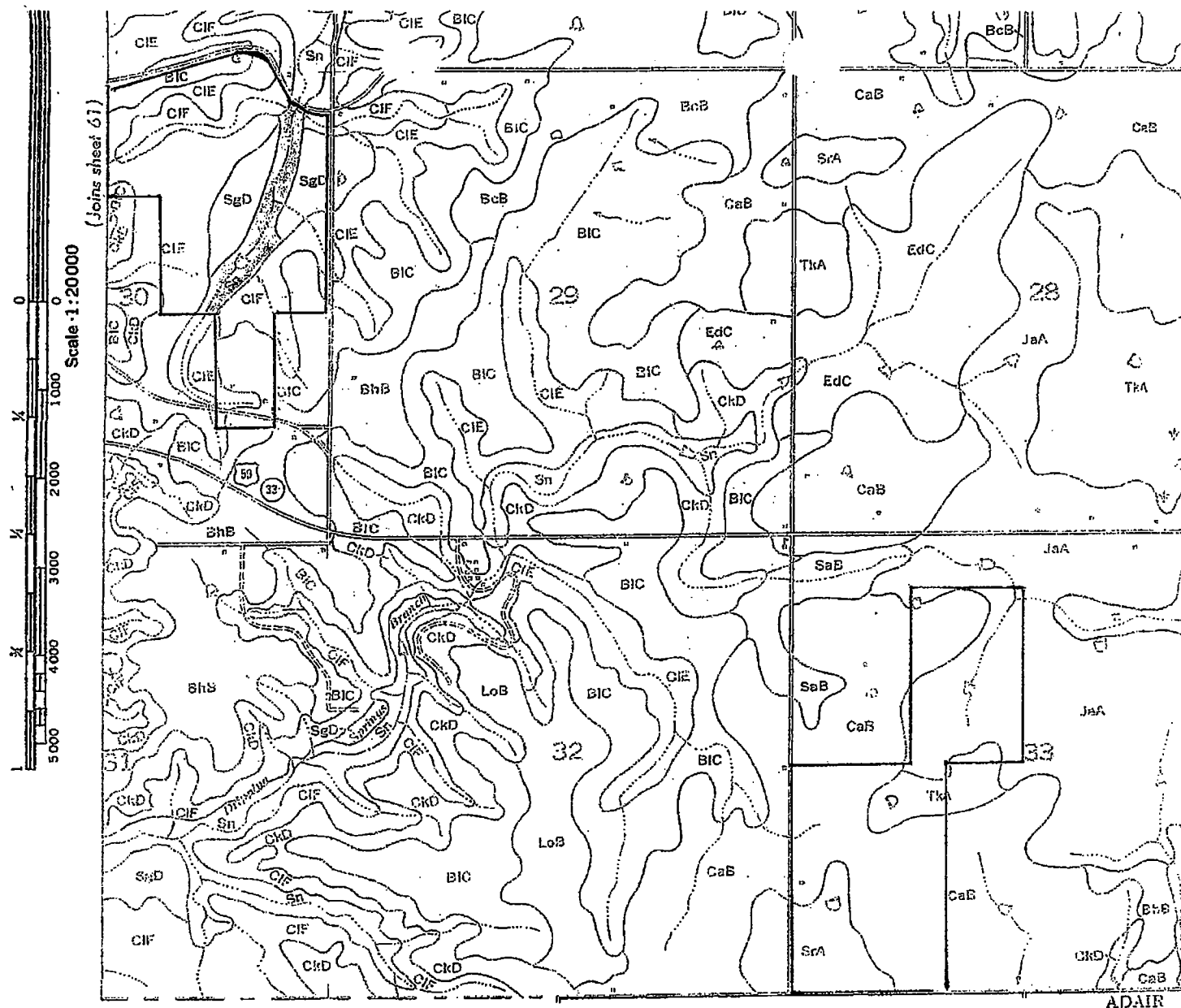


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S.T. = Soil Test





**Section 30 & 33    T.20N    R.25E    DELAWARE COUNTY, OKLAHOMA**

**Map Symbol**

**Soil Name**

<b>BiC</b>	<b>Baxter-Locust complex, 3 to 5 percent slopes</b>
<b>CaB</b>	<b>Captina silt loam, 1 to 3 percent slopes</b>
<b>CiE</b>	<b>Clarksville stony silt loam, 5 to 20 percent slopes</b>
<b>CiF</b>	<b>Clarksville stony silt loam, 20 to 50 percent slopes</b>
<b>JaA</b>	<b>Jay silt loam, 0 to 2 percent slopes</b>
<b>SaB</b>	<b>Sallisaw silt loam, 1 to 3 percent slopes</b>
<b>SgD</b>	<b>Sallisaw gravelly silt loam, 3 to 8 percent slopes</b>
<b>Sn</b>	<b>Staser gravelly loam, 0 to 3 percent slopes</b>
<b>SrA</b>	<b>Stigler silt loam, 0 to 1 percent slopes</b>
<b>TKA</b>	<b>Taloka silt loam, 0 to 1 percent slopes</b>

<b>Map Symbol</b>	<b>SOIL NAME AND DESCRIPTION</b>
<b>BiC</b>	<p><b>Baxter-Locust complex, 3 to 5 percent slopes</b></p> <p><b>These soils occur in such a pattern they could not be shown separately on the soil map. They are both deep soils and have cherty silt loam surface layers. Baxter is dominantly a cherty clay in the subsoil and Locust is a cherty silty clay loam in the subsoil. Natural fertility, organic matter content, and available water capacity are medium.</b></p>
<b>CaB</b>	<p><b>Captina silt loam, 1 to 3 percent slopes</b></p> <p><b>This is a deep soil with a silt loam surface layer and a silty clay loam subsoil. Natural fertility and organic matter content are medium. The available water capacity is high.</b></p>
<b>CiE</b>	<p><b>Clarksville stony silt loam, 5 to 20 percent slopes</b></p> <p><b>This is a deep soil with a stony silt loam surface layer and a stony silty clay loam subsoil. Natural fertility, organic matter content, and available water capacity are medium to low.</b></p>
<b>CiF</b>	<p><b>Clarksville stony silt loam, 20 to 50 percent slopes</b></p> <p><b>This is a deep soil that contains many chert fragments in the soil and is stony on the surface. It has a very cherty silt loam surface layer and a very cherty silty clay loam subsoil. Natural fertility, organic matter content and available water capacity are medium to low.</b></p>
<b>JaA</b>	<p><b>Jay silt loam, 0 to 2 percent slopes</b></p> <p><b>This is a deep soil with a silt loam surface layer and a silty clay loam subsoil. Natural fertility and organic matter content are medium. The available water capacity is high.</b></p>
<b>SaB</b>	<p><b>Sallisaw silt loam, 1 to 3 percent slopes</b></p> <p><b>This is a deep soil with a silt loam surface layer and a silty clay loam subsoil. Natural fertility and organic matter content are medium. The available water capacity is high.</b></p>

**SgD Sallisaw gravelly silt loam, 3 to 8 percent slopes**

**This is a deep soil with a gravelly silt loam surface layer and a gravelly silty clay loam subsoil. Organic matter content, natural fertility, and available water capacity are medium.**

**Sn Staser gravelly loam, 0 to 3 percent slopes**

**This is a deep soil that is a gravelly loam throughout. It is subject to occasional flooding. Natural fertility, organic matter content, and available water capacity are medium to high.**

**SrA Stigler silt loam, 0 to 1 percent slopes**

**This is a deep soil with a thick silt loam surface layer and a silty clay loam subsoil. Natural fertility and organic matter content are medium. The available water capacity is high.**

**TkA Taloka silt loam, 0 to 1 percent slopes**

**This is a deep soil with a thick silt loam surface layer and a silty clay subsoil. Natural fertility, organic matter content, and available water capacity are high. Seasonal wetness may limit litter application.**

## OKLAHOMA CO-OPERATIVE EXTENSION SERVICE

**SOIL, WATER & FORAGE ANALYTICAL LABORATORY**

Division of Agricultural Sciences and Natural Resources • Oklahoma State University  
 Plant and Soil Sciences • 048 Agricultural Hall • Stillwater, OK 74078  
 Email: [soils\\_lab@mail.pss.okstate.edu](mailto:soils_lab@mail.pss.okstate.edu)  
 Website: <http://clay.agr.okstate.edu/extensio/swfal/intro.htm>

**SOIL TEST REPORT****DELAWARE CTY EXT OFC**

PO BOX 1020  
 JAY, OK 74346  
 (918) 253-4332

Name: **Bill Anderson**Location: **Field 1**

Lab ID No.: 297723  
 Customer Code: 21  
 Sample No.: 2944  
 Received: 8/28/2002  
 Report Date: 8/30/2002

<b>- Soil Reaction -</b>		<b>- NO<sub>3</sub>-N (lbs/acre) -</b>		<b>- Test Index (Mehlich 3) -</b>	
pH:	5.2	Surface:	6	P:	54
Buffer Index:	6.7	Subsoil:		K:	232
<b>- Secondary Nutrients -</b>		<b>- Micronutrients -</b>		<b>- Additional Test-</b>	
Surface SO <sub>4</sub> -S (lbs/A):		Fe (ppm):		OM (%):	
Subsoil SO <sub>4</sub> -S (lbs/A):		Zn (ppm):			
Ca (lbs/A):		B (ppm):			
Mg (lbs/A):					

**INTERPRETATION AND REQUIREMENTS FOR *Bermudagrass* (YIELD GOAL = 3tons/acre)**

<b>- Test -</b>	<b>- Interpretation -</b>	<b>- Requirement -</b>	<b>- Recommendations and Comments -</b>
pH	Lime needed	1.4 tons ECCE/acre	
Nitrogen	Deficient	144 lbs/acre N	
Phosphorus	98% Sufficient	9 lbs/acre P <sub>2</sub> O <sub>5</sub> annually	
Potassium	98% Sufficient	11 lbs/acre K <sub>2</sub> O annually	

DELAWARE COUNTY OSU EXTENSION CTR  
 PO BOX 1020 - FAIR GROUNDS  
 JAY, OK 74346  
 (918) 253-4332

JEASON HOLLENBECK  
 Extension Educator-Agriculture

Signature



## SOIL, WATER & FORAGE ANALYTICAL LABORATORY

Division of Agricultural Sciences and Natural Resources • Oklahoma State University  
Plant and Soil Sciences • 048 Agricultural Hall • Stillwater, OK 74078  
Email: [soils\\_lab@mail.pss.okstate.edu](mailto:soils_lab@mail.pss.okstate.edu)  
Website: <http://clay.agr.okstate.edu/extensio/swfal/intro.htm>

### SOIL TEST REPORT

DELAWARE COUNTY  
OKLA CONSER COMM PROG  
PO BOX 1020  
JAY, OK 74346  
405-521-2384

Name:

*Tony Anderson*

Location:

*old Home Place  
30-20-25*

Lab I.D. No.: 261075

Customer Code: 1100

Sample No: 2603

Received: 07/09/01

Report Date: 07/19/01

#### TEST RESULTS

— Soil Reaction —	— NO <sub>3</sub> -N (lbs/acre) —	— Test Index —
pH: 5.1	Surface: 4	P: 27
Buffer Index: 6.8	Subsoil:	K: 294
— Secondary nutrients —		— Micronutrients —
Surface SO <sub>4</sub> -S (lbs/acre):	Ca (lbs/acre):	Fe (ppm):
Subsoil SO <sub>4</sub> -S (lbs/acre):	Mg (lbs/acre):	Zn (ppm):
		B (ppm):

#### INTERPRETATIONS AND REQUIREMENTS FOR *Bermudagrass* (YIELD GOAL = 3.00 tons/acre)

— Test —	— Interpretation —	— Requirement —	— Recommendations and Comments —
pH	Lime needed	1.2 tons ECCE/acre to pH 6.8	
Nitrogen	Deficient	146 lbs/acre N	
Phosphorus	85% Sufficient	33 lbs/acre P <sub>2</sub> O <sub>5</sub> annually	
Potassium	Adequate	None	

*Jason Hollenbeck*  
JASON HOLLENBECK  
Extension Educator-Agriculture

DELAWARE COUNTY OSU EXTENSION CTR  
PO BOX 1020 - FAIR GROUNDS  
JAY, OK 74346  
(918) 253-4332

**AGRICULTURAL DIAGNOSTIC LABORATORY  
UNIVERSITY OF ARKANSAS - FAYETTEVILLE  
DRY MANURE FOR FERTILIZER ANALYSIS (report for CES-429)**

Name:	BILL ANDERSON	Received:	8-28-02
Address:	RT. 5, BOX 266	Mailed:	9-04-02
City:	COLCORD	State, Zip:	OK 74338
County:	DELAWARE	Check #:	POULTRY FEDERATION

Lab #	M21435					
Sample #	DEL/OSU-921					
Animal type	hens					
-age/lbs	none given					
Bedding type	hulls/shavings					
Manure type	cleanout					
Sample date	8-23-02					
Age of manure	1 yr					
pH	8.0					
Ec(umhos/cm)	5850					
% H2O	19.3					

**% on dry weight basis**

Total N	2.66					
Total P	1.62					
Total K	2.47					
Total Ca	2.24					

**% on "as-is" basis**

Total N	2.15					
Total P	1.31					
Total K	1.99					
Total Ca	1.81					

**lbs/ton on "as-is" basis**

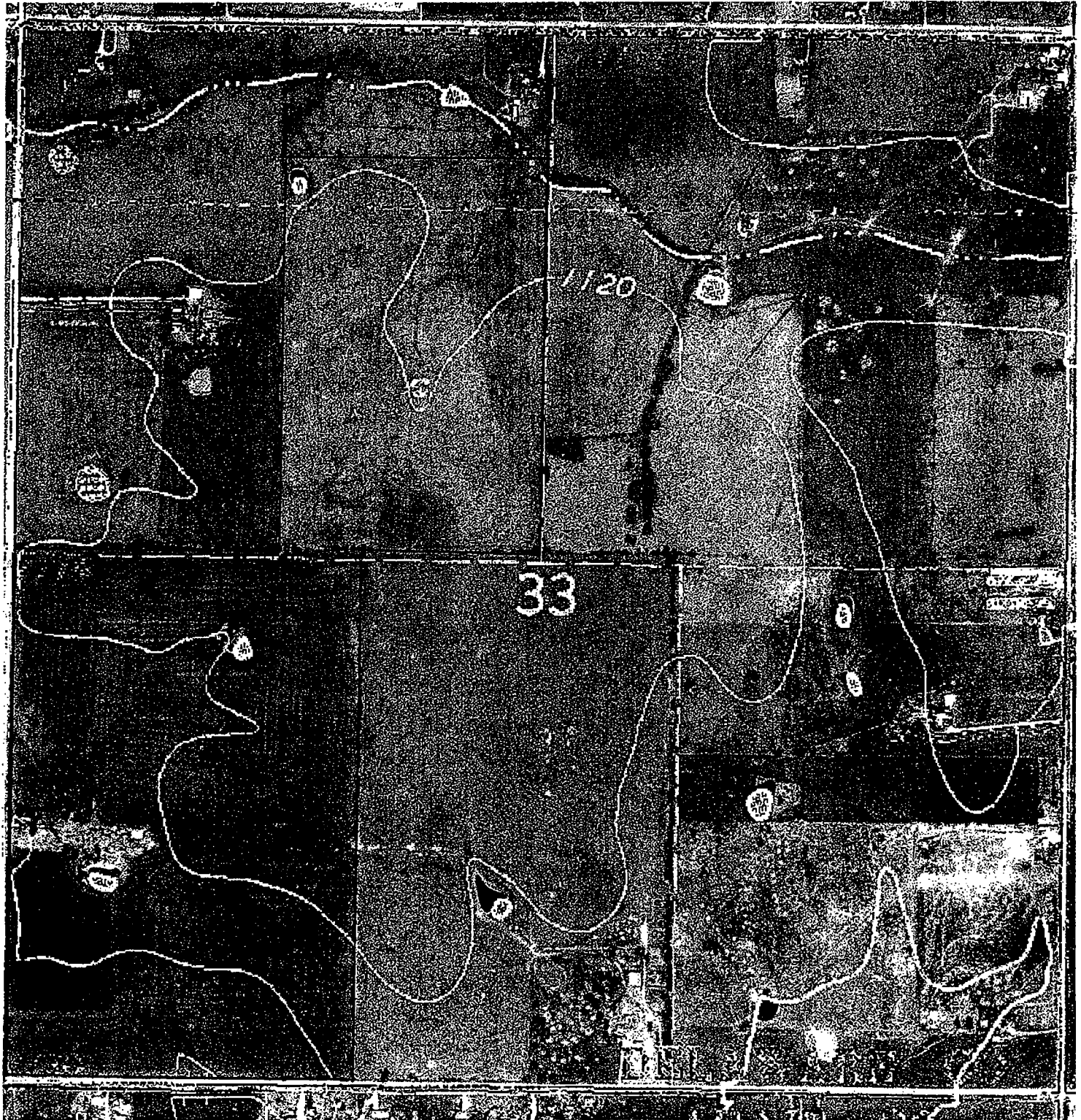
N	42.9					
TOTAL P AS						
"P2O5"	59.9					
TOTAL K AS						
"K2O"	47.8					
Ca	36.2					

\*lbs/ton P2O5 = %Total P on "as-is" basis multiplied by 20\*2.29

\*lbs/ton K2O = %Total K on "as-is" basis multiplied by 20\*1.2



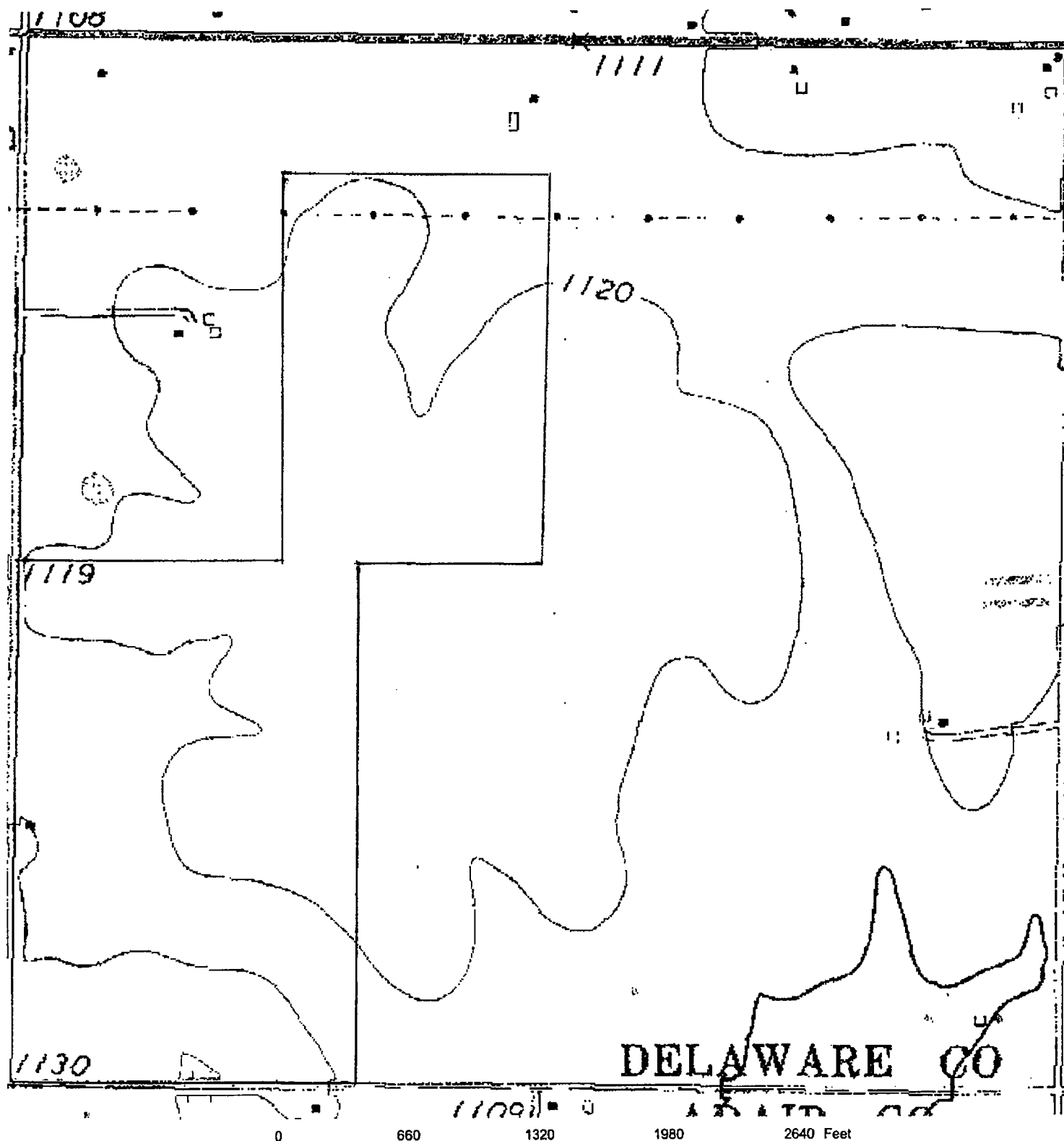
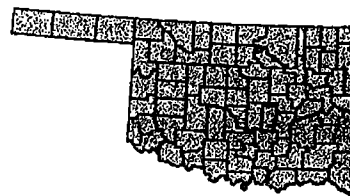
# S33 T20N R25E Delaware & Adair Counties, OK



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# S33 T20N R25E Delaware & Adair Counties, OK

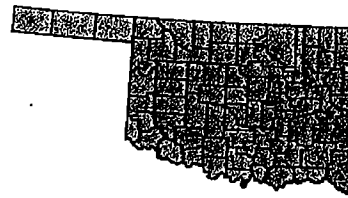


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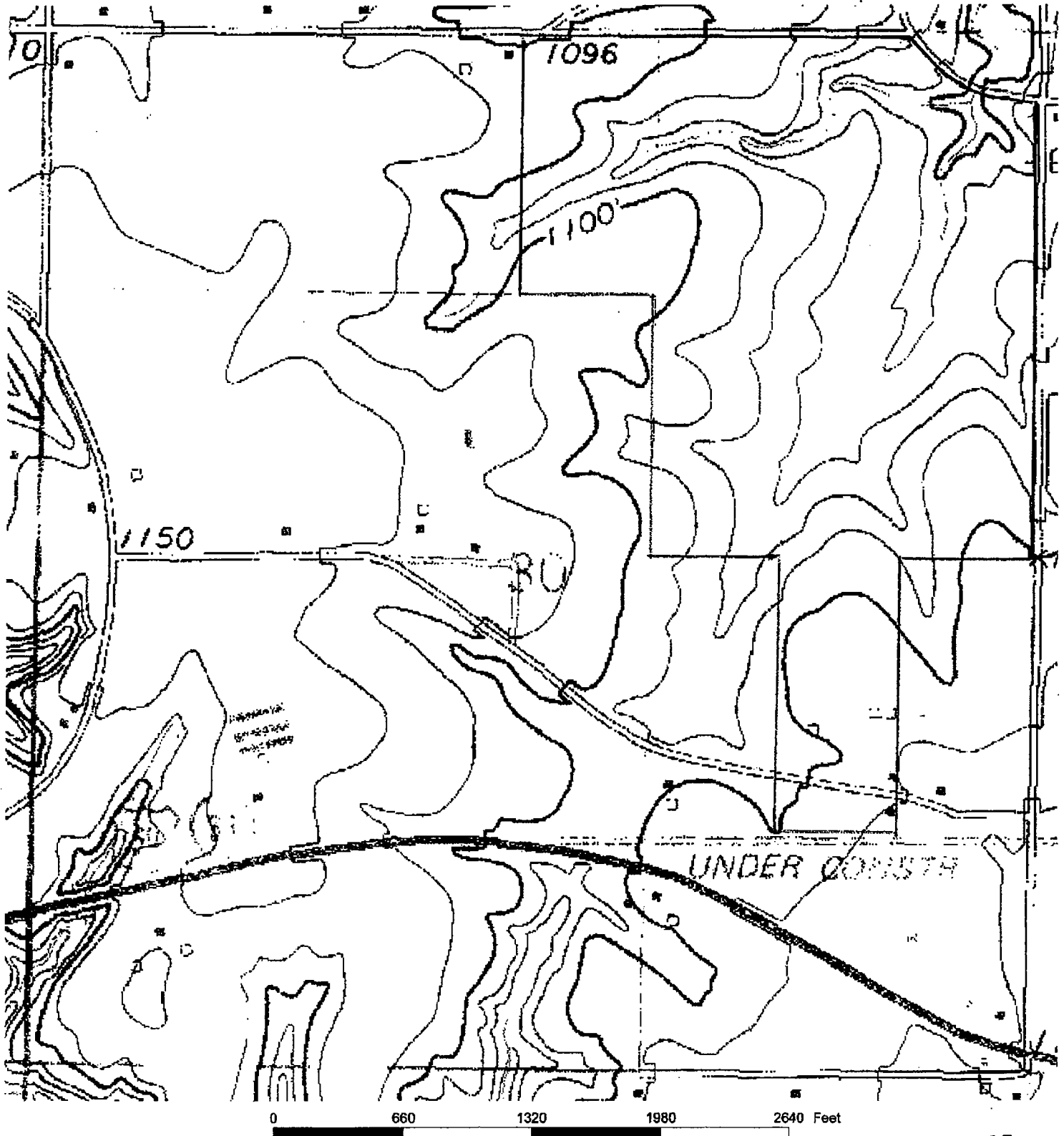
**S30 T20N R25E**  
**Delaware County, OK**



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# S30 T20N R25E Delaware County, OK

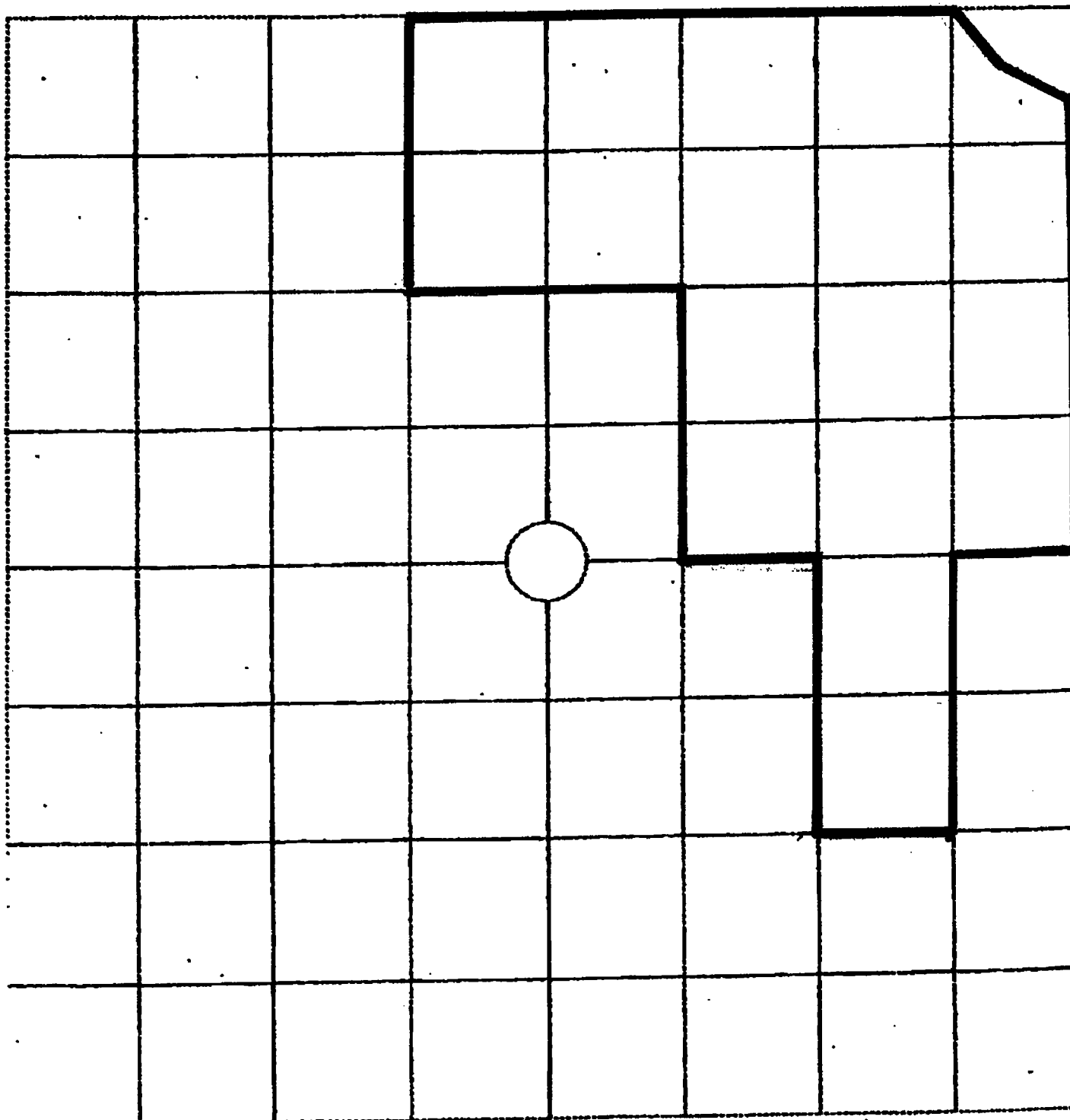


OKLAHOMA DEPARTMENT OF AGRICULTURE  
WATER QUALITY SERVICES DIVISION  
Legal Location Plat



Facility Name Bill R. Anderson  
Legal Desc.                                  Sec 30 T 20N R 25E Mer.             
County Delaware

Size:  
10 acre  
Scale:  
1" = 660'

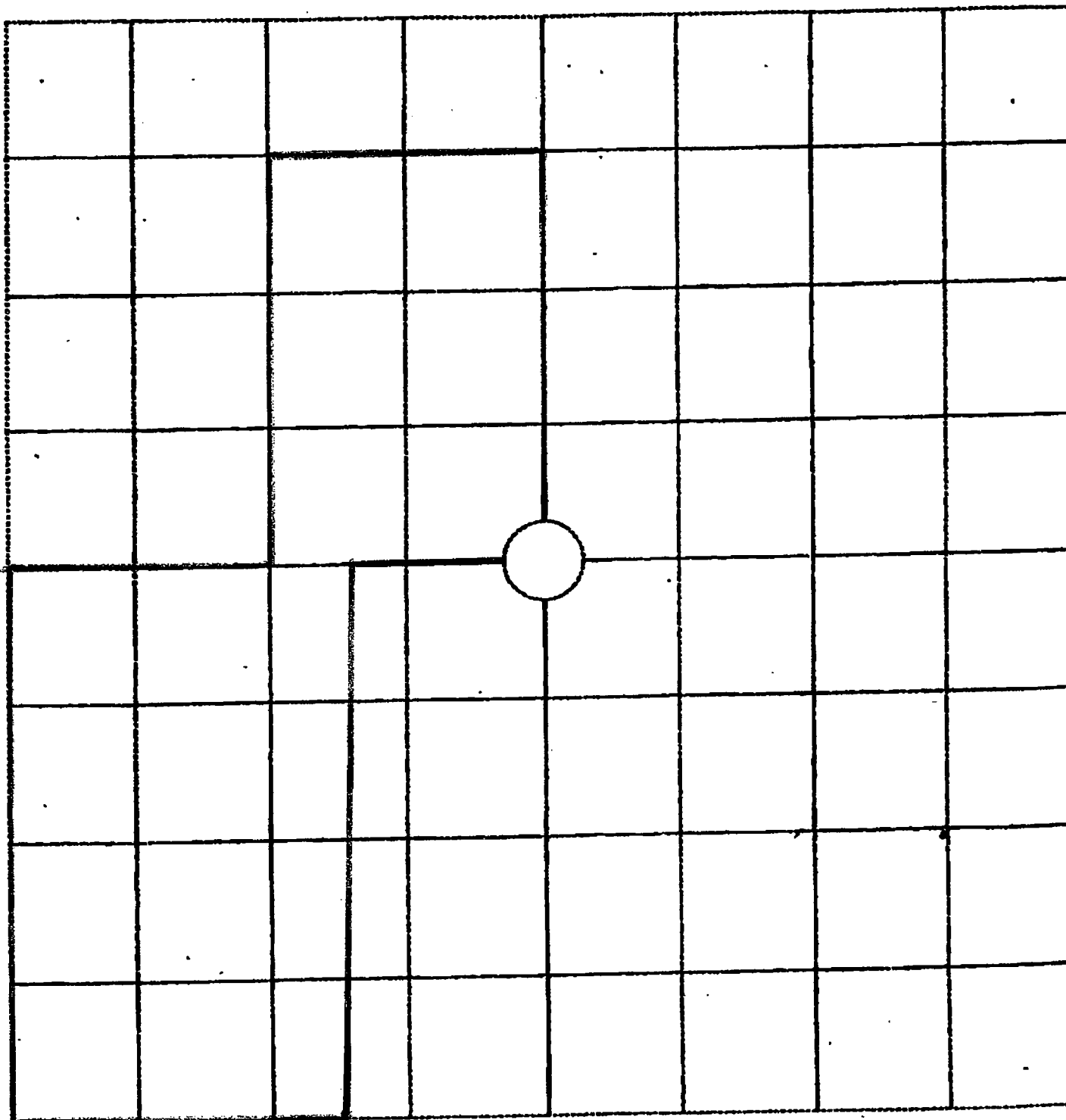


OKLAHOMA DEPARTMENT OF AGRICULTURE  
WATER QUALITY SERVICES DIVISION  
Legal Location Plat

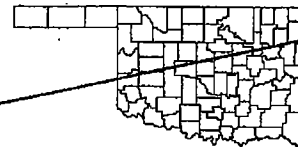


Facility Name Bill R. Anderson  
Legal Desc.                                  Sec 33 T 20N R 25E Mer.             
County Delaware

Size:  
10 acre  
Scale:  
1" = 660'



**S9 T20N R25E**  
**Delaware County, OK**



Delaware  
County

S9 T20N R25E

Bill/Betty Anderson #1  
ID#16, S1/2, SW1/4  
Printed: 5/9/06

0 660 1320 1980 2640 Feet

Produced by the Oklahoma Department of Agriculture Geographic Information System.



**35:17-5-5. Animal Waste Management Plan requirements**

- (a) The Animal Waste Management Plan shall contain, at a minimum, the following:
- (1) A description of poultry waste handling procedures and availability of equipment and type of equipment to be used.
  - (2) The calculations and assumptions used for determining land application rates.
  - (3) All nutrient analysis data, including soil and poultry waste testing.
  - (4) Legal description of lands to be used by an operation for land application.
  - (5) Soils map with description and type or series.
  - (6) Land application rates of poultry waste shall be based on the available nitrogen and phosphorus content of the poultry waste and soil test results.
  - (7) The procedures documented in the AWMP shall ensure that the handling and utilization of poultry waste complies with the following requirements:
    - (A) Adequate poultry waste storage shall be provided. Poultry waste shall not be stored without adequate protection from rainfall and runoff. All new poultry feeding operations shall make provisions for storage of poultry waste prior to operating. Exceptions to storage requirements for poultry waste in emergency situations shall be granted on a case by case basis. Exceptions shall include but not be limited to allowing a contract poultry grower to take such actions as are necessary to meet requirements imposed on a grower by an integrator. However, in all situations growers shall be required to take all actions feasible to prevent pollution from stored poultry waste.
    - (B) Poultry waste shall not be applied to land when the ground is saturated or during rainfall events. Poultry waste shall not be applied to land when the ground is frozen or snow covered except in conformance with the AWMP.
    - (C) Poultry waste shall only be applied to suitable land at appropriate times and rates as specified by the AWMP. Runoff of poultry waste from the application site is prohibited.
    - (D) All practices necessary to minimize movement of poultry waste to watercourses shall be utilized and documented in the AWMP.
    - (E) Edge of field, grassed strips shall separate water courses from runoff which may be carrying eroded soil and poultry waste.
    - (F) Poultry waste application shall be prohibited on land subject to excessive erosion.
    - (G) Land application rates of poultry waste shall provide controls for runoff as appropriate for site conditions.
- (b) The AWMP shall also include a method for the disposal of carcasses. The AWMP shall include provisions for disposal of carcasses associated with normal mortality and shall include provisions for emergency disposal when a major disease outbreak or other emergency results in deaths significantly higher than normal mortality rates. Accepted methods of carcass disposal include:
- (1) Rendering
    - (A) Disposal of all carcasses shall occur within a reasonable period of time as approved by the State Department of Agriculture.
    - (B) Storage facilities shall be sealed or have lids and maintained so as to prevent pests and odors.
  - (2) Burial shall only be allowed as a method of carcass disposal if no reasonable alternative exists and specific measures and practices are identified which will be utilized to protect the ground and surface waters of the State.
  - (3) Composting by methods as approved in the AWMP.
  - (4) Incineration shall only be used as a method of carcass disposal if the poultry feeding operation has a valid air quality permit from the Oklahoma Department of Environmental Quality, Air Quality Division, if required.
- (c) Storage and land application of poultry waste shall not cause a discharge or runoff of significant pollutants to waters of the State or cause a water quality violation to waters of the State.
- (d) The operator shall notify the State Department of Agriculture within twenty-four (24) hours of a discharge.

[Source: Added at 15 Ok Reg 1057, eff 12-19-97 (emergency); Added at 15 Ok Reg 2508, eff 6-25-98; Amended at 15 Ok Reg 4266, eff 8-20-98 (emergency); Amended at 16 Ok Reg 2119, eff 6-25-99]